# TSG-RAN Meeting #17 Biarritz, France, 3 - 6 September 2002

Title: Agreed CRs (Release '99 and Rel-4/Rel-5 category A) to TS 25.331

Source: TSG-RAN WG2

Agenda item: 7.2.3

Doc-1st-	Status-	Spec	CR	Rev	Phase	Subject	Cat	Versio	Versio
R2-022262	agreed	25.331	1585		R99	Correction to the handling of IE "UTRAN DRX cycle length coefficient" in CELL/URA UPDATE procedure	F	3.11.0	3.12.0
R2-022263	agreed	25.331	1586		Rel-4	Correction to the handling of IE "UTRAN DRX cycle length coefficient" in CELL/URA UPDATE procedure	Α	4.5.0	4.6.0
R2-022264	agreed	25.331	1587		Rel-5	Correction to the handling of IE "UTRAN DRX cycle length coefficient" in CELL/URA UPDATE procedure	Α	5.1.0	5.2.0
R2-022268	agreed	25.331	1588		R99	Correction to RLC unrecoverable error in CELL_DCH state	F	3.11.0	3.12.0
R2-022269	agreed	25.331	1589		Rel-4	Correction to RLC unrecoverable error in CELL DCH state		4.5.0	4.6.0
R2-022270	agreed	25.331	1590		Rel-5	Correction to RLC unrecoverable error in CELL DCH state		5.1.0	5.2.0
R2-022271	agreed	25.331	1591		R99	Use of scrambling change when activating CM pattern using SF/2 by MEASUREMENT CONTROL	F	3.11.0	3.12.0
R2-022272	agreed	25.331	1592		Rel-4	Use of scrambling change when activating CM pattern using SF/2 by MEASUREMENT CONTROL		4.5.0	4.6.0
R2-022273	agreed	25.331	1593		Rel-5	Use of scrambling change when activating CM pattern using SF/2 by MEASUREMENT CONTROL		5.1.0	5.2.0
R2-022274	agreed	25.331	1594		R99	Actions when optional IE "Maximum allowed UL TX power" is missing		3.11.0	3.12.0
R2-022275	agreed	25.331	1595		Rel-4	Actions when optional IE "Maximum allowed UL TX power" is missing		4.5.0	4.6.0
R2-022276	agreed	25.331	1596		Rel-5	Actions when optional IE "Maximum allowed UL TX power" is missing		5.1.0	5.2.0
R2-022280	agreed	25.331	1600		R99	Clarification on the IE "Frequency Info"		3.11.0	3.12.0
R2-022281		25.331	1601		Rel-4	Clarification on the IE "Frequency Info"	Α	4.5.0	4.6.0
R2-022282	agreed	25.331	1602		Rel-5	Clarification on the IE "Frequency Info"	Α	5.1.0	5.2.0

# 3GPP TSG- RAN WG2 Meeting #31 Stockholm, Sweden, 19 - 23 August 2002

,		, -										CR-Form-v7
			(	CHAN	IGE	REC	QUE	ST	•			CK-FUIII-VI
ж	25	.331	CR	1585		<b>≋ rev</b>	-	¥	Current vei	sion:	3.11.0	<b>)</b> #
For <u>HELP</u> on	using	this for	rm, see	bottom	of this	page o	r look	at the	e pop-up tex	t over	the # sy	mbols.
			1100	00		N 4 - 1	<b>,</b> D.	1' - A	NI . (		] o <b>.</b>	
Proposed change	affec	ts:	JICC a	pps#		ME	K Ra	dio A	ccess Netwo	ork	Core N	letwork
Title:	€ Co	rrectio	n to the	e handlin	g of IE	UTR/	N DR	Х су	cle length co	efficie	ent" in CE	LL/URA
	UP	DATE	proced	dure								
Source:	€ TS	G-RAN	WG2									
Work item code:	€ TE	l							Date: 8	£ 05	/08/2002	
									Date.			
Category:	€ F	ono of	the fall-	wina sat	ogorios	· ·			Release: 8			loosoo:
			trie iolic rection)	owing cate	egories	i.			Use <u>one</u> c 2		люwing re И Phase 2	
				ds to a co	rrectio	n in an e	arlier r	elease			ease 1996	
		B (add	dition of	feature),					R97		ease 1997	
				modificati odificatioi		eature)			R98 R99		ease 1998	
				ns of the		categori	es can		Rel-4		ease 1999 ease 4)	)
				ΓR 21.900		ou.ogo			Rel-5		ease 5)	
									Rel-6	(Rele	ease 6)	
Reason for chang	10: H	If the	\	TDANID	DY cv	clo long	h coo	fficio	nt" is include	od in C	ELL/LID	٨
Reason for chang	<b>e.</b> ••								fter state tra			
									to the curre			
									t" for calcula			
									in subclause			
		state. This might lead to UE's failure to receive the paging if the UE enters the URA PCH state.										ers the
		URA	_PCH	state.								
Summary of chan	ge: ₩	Rem	ove the	e text "in	CELL	_PCH s	tate".					
		Is	solated	Impact /	Analys	is: Propo	sed ch	nange	has an isolate	ed imp	act	
		•		_	-	-		_	DATE proced	-		
		•				•			ication was:			
				o ambi	iguous	or not su	fficier	itly ex	xplicit.			
		•							ing like indic			
			affec	t implem	entatio	ns suppo	rting t	he co	rrected functi	onality	otherwis	e.
Consequences if	$\mathfrak{H}$								r it receiving			
not approved:									Cycle length	coeffic	cient" is ir	ncluded
		and	me iE	KKU SI	ale III	licator	s set	io UI	RA_PCH'.			
Clauses affected:	*	8.3.1	1.6									

YN

Other specs affected:	>	Other core specifications 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 <a href="http://www.3gpp.org/specs/CR.htm">http://www.3gpp.org/specs/CR.htm</a>. 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 <a href="ftp://ftp.3gpp.org/specs/">ftp://ftp.3gpp.org/specs/</a> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

# 8.3.1.6 Reception of the CELL UPDATE CONFIRM/URA UPDATE CONFIRM message by the UE

When the UE receives a CELL UPDATE CONFIRM/URA UPDATE CONFIRM message; and

- if the message is received on the CCCH, and IE "U-RNTI" is present and has the same value as the variable U RNTI; or
- if the message is received on DCCH:

- 1> stop timer T302;
- 1> in case of a cell update procedure and the CELL UPDATE CONFIRM message:
  - 2> includes "RB information elements"; and/or
  - 2> includes "Transport channel information elements"; and/or
  - 2> includes "Physical channel information elements"; and
  - 2> if the variable ORDERED RECONFIGURATION is set to FALSE:
    - 3> set the variable ORDERED RECONFIGURATION to TRUE.
- 1> act upon all received information elements as specified in subclause 8.6, unless specified otherwise in the following:
  - 2> if the IE "Frequency info" is included in the message:
    - 3> if the IE "RRC State Indicator" is set to the value "CELL\_FACH" or "CELL\_PCH" or URA\_PCH":
      - 4> select a suitable UTRA cell according to [4] on that frequency;
      - 4> act as specified in subclause 8.3.1.12.
    - 3> if the IE "RRC State Indicator" is set to the value "CELL\_DCH":
      - 4> act on the IE "Frequency info" as specified in subclause 8.6.6.1.
  - 2> use the transport channel(s) applicable for the physical channel types that is used; and
  - 2> if the IE "TFS" is neither included nor previously stored in the UE for that transport channel(s):
    - 3> use the TFS given in system information.
  - 2> if none of the TFS stored is compatible with the physical channel:
    - 3> delete the stored TFS;
    - 3> use the TFS given in system information.
  - 2> perform the physical layer synchronisation procedure as specified in [29];
  - 2> if the CELL UPDATE CONFIRM message includes the IE "RLC re-establish indicator (RB2, RB3 and RB4)":
    - 3> re-establish the RLC entities for signalling radio bearer RB2, signalling radio bearer RB3 and signalling radio bearer RB4 (if established);
    - 3> if the value of the IE "Status" in the variable CIPHERING\_STATUS of the CN domain stored in the variable LATEST\_CONFIGURED\_CN\_DOMAIN is set to "Started":
      - 4> set the HFN component of the respective COUNT-C values for AM RLC entities with RB identity 2,RB identity 3 and RB identity 4 (if established) equal to the START value included in the latest

transmitted CELL UPDATE message for the CN domain stored in the variable LATEST\_CONFIGURED\_CN\_DOMAIN.

- 2> if the CELL UPDATE CONFIRM message includes the IE "RLC re-establish indicator (RB5 and upwards)":
  - 3> for radio bearers with RB identity 5 and upwards:
    - 4> re-establish the AM RLC entities:
    - 4> if the value of the IE "Status" in the variable CIPHERING\_STATUS of the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED\_RABS is set to "Started":
      - 5> set the HFN component of the respective COUNT-C values for AM RLC entities equal to the START value included in this CELL UPDATE message for the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED\_RABS.
- 1> if the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message contained the IE "Ciphering mode info" or contained the IE "Integrity protection mode info":
  - 2> set the IE "Status" in the variable SECURITY\_MODIFICATION for all the CN domains in the variable SECURITY\_MODIFICATION to "Affected".
- 1> enter a state according to subclause 8.6.3.3 applied on the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message.

If the UE after state transition enters CELL\_DCH state, it shall:

1> not prohibit periodical status transmission in RLC.

If the UE after state transition remains in CELL\_FACH state, it shall

- 1> start the timer T305 using its initial value if timer T305 is not running and periodical cell update has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity";
- 1> select PRACH according to subclause 8.5.17;
- 1> select Secondary CCPCH according to subclause 8.5.19;
- 1> not prohibit periodical status transmission in RLC;
- 1> if the IE "UTRAN DRX cycle length coefficient" is included in the same message:
  - 2> ignore that IE and stop using DRX.

If the UE after state transition enters URA\_PCH or CELL\_PCH state, it shall:

- 1> prohibit periodical status transmission in RLC;
- 1> clear the variable C\_RNTI;
- 1> stop using that C\_RNTI just cleared from the variable C\_RNTI in MAC;
- 1> start the timer T305 using its initial value if timer T305 is not running and periodical update has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity";
- 1> select Secondary CCPCH according to subclause 8.5.19;
- 1> if the IE "UTRAN DRX cycle length coefficient" is included in the same message:
  - 2> use the value in the IE "UTRAN DRX Cycle length coefficient" for calculating Paging Occasion and PICH Monitoring Occasion as specified in subclause 8.6.3.2 in CELL\_PCH state.
- 1> if the IE "UTRAN DRX cycle length coefficient" is not included in the same message:
  - 2> set the variable INVALID\_CONFIGURATION to TRUE.

If the UE after the state transition remains in CELL\_FACH state; and

1> the contents of the variable C\_RNTI are empty:

it shall check the value of V302; and:

- 1> if V302 is equal to or smaller than N302:
  - 2> if, caused by the received CELL UPDATE CONFIRM or URA UPDATE CONFIRM message:
    - 3> the IE "Reconfiguration" in the variable CIPHERING\_STATUS is set to TRUE; and/or
    - 3> the IE "Reconfiguration" in the variable INTEGRITY\_PROTECTION\_INFO is set to TRUE:
      - 4> abort the ongoing integrity and/or ciphering reconfiguration;
      - 4> if the received CELL UPDATE CONFIRM or URA UPDATE CONFIRM message contained the IE "Ciphering mode info":
        - 5> set the IE "Reconfiguration" in the variable CIPHERING\_STATUS to FALSE; and
        - 5> clear the variable RB\_UPLINK\_CIPHERING\_ACTIVATION\_TIME\_INFO.
      - 4> if the received CELL UPDATE CONFIRM or URA UPDATE CONFIRM message contained the IE "Integrity protection mode info":
        - 5> set the IE "Reconfiguration" in the variable INTEGRITY\_PROTECTION\_INFO to FALSE; and
        - 5> clear the variable INTEGRITY\_PROTECTION\_ACTIVATION\_INFO.
  - 2> in case of a URA update procedure:
    - 3> stop the URA update procedure; and
    - 3> continue with a cell update procedure.
  - 2> set the contents of the CELL UPDATE message according to subclause 8.3.1.3, except for the IE "Cell update cause" which shall be set to "cell reselection";
  - 2> submit the CELL UPDATE message for transmission on the uplink CCCH;
  - 2> increment counter V302;
  - 2> restart timer T302 when the MAC layer indicates success or failure to transmit the message.
- 1> if V302 is greater than N302:
  - 2> clear the variable RB\_UPLINK\_CIPHERING\_ACTIVATION\_TIME\_INFO;
  - 2> clear the variable INTEGRITY\_PROTECTION\_ACTIVATION\_INFO;
  - 2> in case of a cell update procedure:
    - 3> clear the entry for the CELL UPDATE CONFIRM message in the table "Rejected transactions" in the variable TRANSACTIONS.
  - 2> in case of a URA update procedure:
    - 3> clear the entry for the URA UPDATE CONFIRM message in the table "Rejected transactions" in the variable TRANSACTIONS.
  - 2> release all its radio resources:
  - 2> indicate release (abort) of the established signalling connections (as stored in the variable ESTABLISHED\_SIGNALLING\_CONNECTIONS) and established radio access bearers (as stored in the variable ESTABLISHED\_RABS) to upper layers;
  - 2> clear the variable ESTABLISHED\_SIGNALLING\_CONNECTIONS;

- 2> clear the variable ESTABLISHED\_RABS;
- 2> enter idle mode;
- 2> other actions the UE shall perform when entering idle mode from connected mode are specified in subclause 8.5.2;
- 2> and the procedure ends.

If the UE after the state transition remains in CELL\_FACH state; and

- a C-RNTI is stored in the variable C\_RNTI;

or

- the UE after the state transition moves to another state than the CELL\_FACH state:

- 1> if the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message contained the IE "Ciphering mode info":
  - 2> include and set the IE "Radio bearer uplink ciphering activation time info" in any response message transmitted below to the value of the variable RB\_UPLINK\_CIPHERING\_ACTIVATION\_TIME\_INFO.
- 1> in case of a cell update procedure:
  - 2> set the IE "RRC transaction identifier" in any response message transmitted below to the value of "RRC transaction identifier" in the entry for the CELL UPDATE CONFIRM message in the table "Accepted transactions" in the variable TRANSACTIONS; and
  - 2> clear that entry.
- 1> in case of a URA update procedure:
  - 2> set the IE "RRC transaction identifier" in any response message transmitted below to the value of "RRC transaction identifier" in the entry for the URA UPDATE CONFIRM message in the table "Accepted transactions" in the variable TRANSACTIONS; and
  - 2> clear that entry;
- 1> if the variable PDCP\_SN\_INFO is non-empty:
  - 2> include the IE "RB with PDCP information list" in any response message transmitted below and set it to the value of the variable PDCP\_SN\_INFO.
- 1> if the received CELL UPDATE CONFIRM or URA UPDATE CONFIRM message included the IE "Downlink counter synchronisation info":
  - 2> re-establish RB2;
  - 2> set the new uplink and downlink HFN component of the COUNT-C of RB2 to MAX(uplink HFN component of the COUNT-C of RB2, downlink HFN component of the COUNT-C of RB2);
  - 2> increment by one the downlink and uplink values of the HFN component of the COUNT-C for RB2;
  - 2> calculate the START value according to subclause 8.5.9;
  - 2> include the calculated START values for each CN domain in the IE "START list" in the IE "Uplink counter synchronisation info" in any response message transmitted below.
- 1> transmit a response message as specified in subclause 8.3.1.7;
- 1> if the IE "Integrity protection mode info" was present in the CELL UPDATE CONFIRM or URA UPDATE CONFIRM message:

- 2> start applying the new integrity protection configuration in the uplink for signalling radio bearer RB2 from and including the transmitted response message.
- 1> if the variable ORDERED\_RECONFIGURATION is set to TRUE caused by the received CELL UPDATE CONFIRM message in case of a cell update procedure:
  - 2> set the variable ORDERED\_RECONFIGURATION to FALSE.
- 1> clear the variable PDCP\_SN\_INFO;
- 1> when the response message transmitted per subclause 8.3.1.7 to the UTRAN has been confirmed by RLC:
  - 2> if the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message contained the IE "Ciphering mode info":
    - 3> resume data transmission on any suspended radio bearer and signalling radio bearer mapped on RLC-AM or RLC-UM;
    - 3> set the IE "Reconfiguration" in the variable CIPHERING\_STATUS to FALSE; and
    - 3> clear the variable RB\_UPLINK\_CIPHERING\_ACTIVATION\_TIME\_INFO.
  - 2> if the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message contained the IE "Integrity protection mode info":
    - 3> set "Uplink RRC Message sequence number" for signalling radio bearer RB0 in the variable INTEGRITY\_PROTECTION\_INFO to a value such that next RRC message to be sent on uplink RB0 will use the new integrity protection configuration;
    - 3> allow the transmission of RRC messages on all signalling radio bearers with any RRC SN;
    - 3> set the IE "Reconfiguration" in the variable INTEGRITY\_PROTECTION\_INFO to FALSE.
  - 2> clear the variable INTEGRITY\_PROTECTION\_ACTIVATION\_INFO.
- 1> in case of a cell update procedure:
  - 2> clear the entry for the CELL UPDATE CONFIRM message in the table "Rejected transactions" in the variable TRANSACTIONS.
- 1> in case of a URA update procedure:
  - 2> clear the entry for the URA UPDATE CONFIRM message in the table "Rejected transactions" in the variable TRANSACTIONS.
- 1> set the variable CELL\_UPDATE\_STARTED to FALSE;
- 1> clear the variable SECURITY\_MODIFICATION.

The procedure ends.

# 3GPP TSG- RAN WG2 Meeting #31 Stockholm, Sweden, 19 - 23 August 2002

				(	CHAN	NGE	REG	UE	ST	•			CR-Form-v7
ж		25.	.331	CR	1586		≋ rev	-	Ħ	Current ve	rsion:	4.5.0	¥
For <u></u>	<b>IELP</b> on u	ising t	his for	m, see	bottom	of this	page o	look	at th	e pop-up te.	kt ove	r the ¥ sy	mbols.
Propose	ed change	affect	ts: l	JICC a	pps# <mark>_</mark>		ME	<b>(</b> Rad	dio A	ccess Netw	ork	Core No	etwork
Title:	ж			n to the proced		ng of IE	E "UTRA	N DR	Х су	cle length c	oefficie	ent" in CE	LL/URA
Source:	ж	TS	G-RAN	WG2									
Work ite	m code: ૠ	TEI								Date:	<b>€</b> 05	/08/2002	
Categor	<i>y:</i>	Use of	F (corn A (corn B (add C (fun D (edi iled exp	rection) respond dition of ctional l torial m olanatio	ds to a co feature), modificat odificatio	orrection ion of fo n) above	n in an ea		eleas	2	of the for (GS) (Reli (Reli (Reli (Reli (Reli (Reli	el-4 ollowing rel M Phase 2) ease 1996) ease 1998) ease 1999) ease 4) ease 5)	
Reason	for change	e: X	UPD or Cl the I and state	ATE C ELL_P E "UTF PICH N	ONFIRM CH state RAN DR Monitorin might lea	I messe, the U X Cycl ng Occ	sage and JE shall, e length asion as	the lacco coeffi spec	JE a rding icien ified	nt" is includ fter state tra g to the curre t" for calcula in subclaus ive the pagi	nsitionent tex ent tex eting P e 8.6.0	n enters U tt, use the aging Oct 3.2 in CEL	RA_PCH value in casion L_PCH
Summai	ry of chang	ge: ₩	Rem	ove the	e text "in	CELL	PCH s	tate".					
Consequence not appr	uences if roved:	ж	CON	IFIRM	messag	e with	IE "UTR	AN D	RX C	r it receiving Cycle length RA_PCH'.			
Clauses	affected:	ж	8.3.1	.6									
Other sp		*	Y N X X	Test	core sp specifica Specific	ations		¥					
Other co	mments:	$\mathfrak{H}$											

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <a href="http://www.3gpp.org/specs/CR.htm">http://www.3gpp.org/specs/CR.htm</a>. 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 <a href="ftp://ftp.3gpp.org/specs/">ftp://ftp.3gpp.org/specs/</a> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

# 8.3.1.6 Reception of the CELL UPDATE CONFIRM/URA UPDATE CONFIRM message by the UE

When the UE receives a CELL UPDATE CONFIRM/URA UPDATE CONFIRM message; and

- if the message is received on the CCCH, and IE "U-RNTI" is present and has the same value as the variable U RNTI; or
- if the message is received on DCCH:

# the UE may:

1> maintain a list of the set of cells to which the UE has Radio Links if the IE "Cell ID" is present.

- 1> stop timer T302;
- 1> in case of a cell update procedure and the CELL UPDATE CONFIRM message:
  - 2> includes "RB information elements"; and/or
  - 2> includes "Transport channel information elements"; and/or
  - 2> includes "Physical channel information elements"; and
  - 2> if the variable ORDERED\_RECONFIGURATION is set to FALSE:
    - 3> set the variable ORDERED\_RECONFIGURATION to TRUE.
- 1> act upon all received information elements as specified in subclause 8.6, unless specified otherwise in the following:
  - 2> if the IE "Frequency info" is included in the message:
    - 3> if the IE "RRC State Indicator" is set to the value "CELL\_FACH" or "CELL\_PCH" or URA\_PCH":
      - 4> select a suitable UTRA cell according to [4] on that frequency;
      - 4> act as specified in subclause 8.3.1.12.
    - 3> if the IE "RRC State Indicator" is set to the value "CELL\_DCH":
      - 4> act on the IE "Frequency info" as specified in subclause 8.6.6.1.
  - 2> use the transport channel(s) applicable for the physical channel types that is used; and
  - 2> if the IE "TFS" is neither included nor previously stored in the UE for that transport channel(s):
    - 3> use the TFS given in system information.
  - 2> if none of the TFS stored is compatible with the physical channel:
    - 3> delete the stored TFS;
    - 3> use the TFS given in system information.
  - 2> perform the physical layer synchronisation procedure as specified in [29];
  - 2> if the CELL UPDATE CONFIRM message includes the IE "RLC re-establish indicator (RB2, RB3 and RB4)":
    - 3> re-establish the RLC entities for signalling radio bearer RB2, signalling radio bearer RB3 and signalling radio bearer RB4 (if established);
    - 3> if the value of the IE "Status" in the variable CIPHERING\_STATUS of the CN domain stored in the variable LATEST\_CONFIGURED\_CN\_DOMAIN is set to "Started":

- 4> set the HFN component of the respective COUNT-C values for AM RLC entities with RB identity 2,RB identity 3 and RB identity 4 (if established) equal to the START value included in the latest transmitted CELL UPDATE message for the CN domain stored in the variable LATEST\_CONFIGURED\_CN\_DOMAIN.
- 2> if the CELL UPDATE CONFIRM message includes the IE "RLC re-establish indicator (RB5 and upwards)":
  - 3> for radio bearers with RB identity 5 and upwards:
    - 4> re-establish the AM RLC entities;
    - 4> if the value of the IE "Status" in the variable CIPHERING\_STATUS of the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED\_RABS is set to "Started":
      - 5> set the HFN component of the respective COUNT-C values for AM RLC entities equal to the START value included in this CELL UPDATE message for the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED\_RABS.
- 1> if the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message contained the IE "Ciphering mode info" or contained the IE "Integrity protection mode info":
  - 2> set the IE "Status" in the variable SECURITY\_MODIFICATION for all the CN domains in the variable SECURITY MODIFICATION to "Affected".
- 1> enter a state according to subclause 8.6.3.3 applied on the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message.

If the UE after state transition enters CELL DCH state, it shall:

1> not prohibit periodical status transmission in RLC.

If the UE after state transition remains in CELL\_FACH state, it shall

- 1> start the timer T305 using its initial value if timer T305 is not running and periodical cell update has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity";
- 1> select PRACH according to subclause 8.5.17;
- 1> select Secondary CCPCH according to subclause 8.5.19;
- 1> not prohibit periodical status transmission in RLC;
- 1> if the IE "UTRAN DRX cycle length coefficient" is included in the same message:
  - 2> ignore that IE and stop using DRX.

If the UE after state transition enters URA\_PCH or CELL\_PCH state, it shall:

- 1> prohibit periodical status transmission in RLC;
- 1> clear the variable C\_RNTI;
- 1> stop using that C\_RNTI just cleared from the variable C\_RNTI in MAC;
- 1> start the timer T305 using its initial value if timer T305 is not running and periodical update has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity";
- 1> select Secondary CCPCH according to subclause 8.5.19;
- 1> if the IE "UTRAN DRX cycle length coefficient" is included in the same message:
  - 2> use the value in the IE "UTRAN DRX Cycle length coefficient" for calculating Paging Occasion and PICH Monitoring Occasion as specified in subclause 8.6.3.2 in CELL\_PCH state.
- 1> if the IE "UTRAN DRX cycle length coefficient" is not included in the same message:

- 2> set the variable INVALID\_CONFIGURATION to TRUE.
- If the UE after the state transition remains in CELL FACH state; and
  - 1> the contents of the variable C\_RNTI are empty:
- it shall check the value of V302; and:
  - 1> if V302 is equal to or smaller than N302:
    - 2> if, caused by the received CELL UPDATE CONFIRM or URA UPDATE CONFIRM message:
      - 3> the IE "Reconfiguration" in the variable CIPHERING\_STATUS is set to TRUE; and/or
      - 3> the IE "Reconfiguration" in the variable INTEGRITY\_PROTECTION\_INFO is set to TRUE:
        - 4> abort the ongoing integrity and/or ciphering reconfiguration;
        - 4> if the received CELL UPDATE CONFIRM or URA UPDATE CONFIRM message contained the IE "Ciphering mode info":
          - 5> set the IE "Reconfiguration" in the variable CIPHERING\_STATUS to FALSE; and
          - 5> clear the variable RB\_UPLINK\_CIPHERING\_ACTIVATION\_TIME\_INFO.
        - 4> if the received CELL UPDATE CONFIRM or URA UPDATE CONFIRM message contained the IE "Integrity protection mode info":
          - 5> set the IE "Reconfiguration" in the variable INTEGRITY\_PROTECTION\_INFO to FALSE; and
          - 5> clear the variable INTEGRITY\_PROTECTION\_ACTIVATION\_INFO.
    - 2> in case of a URA update procedure:
      - 3> stop the URA update procedure; and
      - 3> continue with a cell update procedure.
    - 2> set the contents of the CELL UPDATE message according to subclause 8.3.1.3, except for the IE "Cell update cause" which shall be set to "cell reselection";
    - 2> submit the CELL UPDATE message for transmission on the uplink CCCH;
    - 2> increment counter V302;
    - 2> restart timer T302 when the MAC layer indicates success or failure to transmit the message.
  - 1> if V302 is greater than N302:
    - 2> clear the variable RB\_UPLINK\_CIPHERING\_ACTIVATION\_TIME\_INFO;
    - 2> clear the variable INTEGRITY\_PROTECTION\_ACTIVATION\_INFO;
    - 2> in case of a cell update procedure:
      - 3> clear the entry for the CELL UPDATE CONFIRM message in the table "Rejected transactions" in the variable TRANSACTIONS.
    - 2> in case of a URA update procedure:
      - 3> clear the entry for the URA UPDATE CONFIRM message in the table "Rejected transactions" in the variable TRANSACTIONS.
    - 2> release all its radio resources;
    - 2> indicate release (abort) of the established signalling connections (as stored in the variable ESTABLISHED\_SIGNALLING\_CONNECTIONS) and established radio access bearers (as stored in the variable ESTABLISHED\_RABS) to upper layers;

- 2> clear the variable ESTABLISHED\_SIGNALLING\_CONNECTIONS;
- 2> clear the variable ESTABLISHED\_RABS;
- 2> enter idle mode;
- 2> other actions the UE shall perform when entering idle mode from connected mode are specified in subclause 8.5.2;
- 2> and the procedure ends.

If the UE after the state transition remains in CELL\_FACH state; and

- a C-RNTI is stored in the variable C\_RNTI;

or

- the UE after the state transition moves to another state than the CELL\_FACH state:

- 1> if the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message contained the IE "Ciphering mode info":
  - 2> include and set the IE "Radio bearer uplink ciphering activation time info" in any response message transmitted below to the value of the variable RB\_UPLINK\_CIPHERING\_ACTIVATION\_TIME\_INFO.
- 1> in case of a cell update procedure:
  - 2> set the IE "RRC transaction identifier" in any response message transmitted below to the value of "RRC transaction identifier" in the entry for the CELL UPDATE CONFIRM message in the table "Accepted transactions" in the variable TRANSACTIONS; and
  - 2> clear that entry.
- 1> in case of a URA update procedure:
  - 2> set the IE "RRC transaction identifier" in any response message transmitted below to the value of "RRC transaction identifier" in the entry for the URA UPDATE CONFIRM message in the table "Accepted transactions" in the variable TRANSACTIONS; and
  - 2> clear that entry;
- 1> if the variable PDCP\_SN\_INFO is non-empty:
  - 2> include the IE "RB with PDCP information list" in any response message transmitted below and set it to the value of the variable PDCP\_SN\_INFO.
- 1> if the received CELL UPDATE CONFIRM or URA UPDATE CONFIRM message included the IE "Downlink counter synchronisation info":
  - 2> re-establish RB2;
  - 2> set the new uplink and downlink HFN component of the COUNT-C of RB2 to MAX(uplink HFN component of the COUNT-C of RB2, downlink HFN component of the COUNT-C of RB2);
  - 2> increment by one the downlink and uplink values of the HFN component of the COUNT-C for RB2;
  - 2> calculate the START value according to subclause 8.5.9;
  - 2> include the calculated START values for each CN domain in the IE "START list" in the IE "Uplink counter synchronisation info" in any response message transmitted below.
- 1> transmit a response message as specified in subclause 8.3.1.7;
- 1> if the IE "Integrity protection mode info" was present in the CELL UPDATE CONFIRM or URA UPDATE CONFIRM message:

- 2> start applying the new integrity protection configuration in the uplink for signalling radio bearer RB2 from and including the transmitted response message.
- 1> if the variable ORDERED\_RECONFIGURATION is set to TRUE caused by the received CELL UPDATE CONFIRM message in case of a cell update procedure:
  - 2> set the variable ORDERED\_RECONFIGURATION to FALSE.
- 1> clear the variable PDCP\_SN\_INFO;
- 1> when the response message transmitted per subclause 8.3.1.7 to the UTRAN has been confirmed by RLC:
  - 2> if the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message contained the IE "Ciphering mode info":
    - 3> resume data transmission on any suspended radio bearer and signalling radio bearer mapped on RLC-AM or RLC-UM;
    - 3> set the IE "Reconfiguration" in the variable CIPHERING\_STATUS to FALSE; and
    - 3> clear the variable RB\_UPLINK\_CIPHERING\_ACTIVATION\_TIME\_INFO.
  - 2> if the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message contained the IE "Integrity protection mode info":
    - 3> set "Uplink RRC Message sequence number" for signalling radio bearer RB0 in the variable INTEGRITY\_PROTECTION\_INFO to a value such that next RRC message to be sent on uplink RB0 will use the new integrity protection configuration;
    - 3> allow the transmission of RRC messages on all signalling radio bearers with any RRC SN;
    - 3> set the IE "Reconfiguration" in the variable INTEGRITY\_PROTECTION\_INFO to FALSE.
  - 2> clear the variable INTEGRITY\_PROTECTION\_ACTIVATION\_INFO.
- 1> in case of a cell update procedure:
  - 2> clear the entry for the CELL UPDATE CONFIRM message in the table "Rejected transactions" in the variable TRANSACTIONS.
- 1> in case of a URA update procedure:
  - 2> clear the entry for the URA UPDATE CONFIRM message in the table "Rejected transactions" in the variable TRANSACTIONS.
- 1> set the variable CELL\_UPDATE\_STARTED to FALSE;
- 1> clear the variable SECURITY\_MODIFICATION.

The procedure ends.

# 3GPP TSG- RAN WG2 Meeting #31 Stockholm, Sweden, 19 - 23 August 2002

												CR-Form-v7
			C	CHAN	IGE	REG	UE	ST	•			
*	25	5.331	CR	1587		⊭ rev	-	Ж	Current ve	rsion:	5.1.0	æ
For <u><b>HELP</b></u> o	n using	this for	m, see	bottom	of this	page or	look	at th	e pop-up te	xt ove	r the ¥ sy	ymbols.
Proposed chang			JICC a						ccess Netw		_	letwork
Title:		orrection PDATE			g of IE	: "UTRA	N DR	Х су	cle length c	oeffici	ent" in CE	ELL/URA
Source:	ж <u>т</u> з	SG-RAN	WG2									
Work item code	:₩ <u>Т</u> Е	ΞI							Date:	₩ 05	5/08/2002	
Category:  Reason for char	Det be f	F (con. A (cor. B (add. C (fun. D (edi. ailed explored in.  If the UPD. or Col. the I and state	rection) respond dition of ctional r torial mo blanation 3GPP T ATE C ELL_P( E "UTR PICH M	ONFIRM CH state AN DRX Ionitoring might lea	RX cycles, the U	categories  categories	h coeffi d the U acco coeffi spec	fficie JE a rding cient	2	of the f (GS) (Rel (Rel (Rel (Rel (Rel (Rel (Rel (Rel	n enters to tt, use the Paging Oc 3.2 in CE	A JRA_PCH e value in ccasion LL_PCH
Summary of cha	ange: ዝ	Rem	ove the	e text "in	CELL	_PCH s	ate".					
Consequences not approved:	if X	CON	IFIRM r	nessage	with I	E "UTR	AN DI	RX C	r it receiving Cycle length RA_PCH'.			
Olaviana affanta	-I- Q	8.3.1										
Clauses affected Other specs affected:	<b>3</b> . 34	YN	Other Test s	core spe specificat	tions	tions	ж					
Other comment	s: #	8										

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <a href="http://www.3gpp.org/specs/CR.htm">http://www.3gpp.org/specs/CR.htm</a>. 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 <a href="ftp://ftp.3gpp.org/specs/">ftp://ftp.3gpp.org/specs/</a> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

# 8.3.1.6 Reception of the CELL UPDATE CONFIRM/URA UPDATE CONFIRM message by the UE

When the UE receives a CELL UPDATE CONFIRM/URA UPDATE CONFIRM message; and

- if the message is received on the CCCH, and IE "U-RNTI" is present and has the same value as the variable U RNTI; or
- if the message is received on DCCH:

# the UE may:

1> maintain a list of the set of cells to which the UE has Radio Links if the IE "Cell ID" is present.

- 1> stop timer T302;
- 1> in case of a cell update procedure and the CELL UPDATE CONFIRM message:
  - 2> includes "RB information elements"; and/or
  - 2> includes "Transport channel information elements"; and/or
  - 2> includes "Physical channel information elements"; and
  - 2> if the variable ORDERED\_RECONFIGURATION is set to FALSE:
    - 3> set the variable ORDERED\_RECONFIGURATION to TRUE.
- 1> act upon all received information elements as specified in subclause 8.6, unless specified otherwise in the following:
  - 2> if the IE "Frequency info" is included in the message:
    - 3> if the IE "RRC State Indicator" is set to the value "CELL\_FACH" or "CELL\_PCH" or URA\_PCH":
      - 4> select a suitable UTRA cell according to [4] on that frequency;
      - 4> act as specified in subclause 8.3.1.12.
    - 3> if the IE "RRC State Indicator" is set to the value "CELL\_DCH":
      - 4> act on the IE "Frequency info" as specified in subclause 8.6.6.1.
  - 2> use the transport channel(s) applicable for the physical channel types that is used; and
  - 2> if the IE "TFS" is neither included nor previously stored in the UE for that transport channel(s):
    - 3> use the TFS given in system information.
  - 2> if none of the TFS stored is compatible with the physical channel:
    - 3> delete the stored TFS;
    - 3> use the TFS given in system information.
  - 2> perform the physical layer synchronisation procedure as specified in [29];
  - 2> if the CELL UPDATE CONFIRM message includes the IE "RLC re-establish indicator (RB2, RB3 and RB4)":
    - 3> re-establish the RLC entities for signalling radio bearer RB2, signalling radio bearer RB3 and signalling radio bearer RB4 (if established);
    - 3> if the value of the IE "Status" in the variable CIPHERING\_STATUS of the CN domain stored in the variable LATEST\_CONFIGURED\_CN\_DOMAIN is set to "Started":

- 4> set the HFN component of the respective COUNT-C values for AM RLC entities with RB identity 2,RB identity 3 and RB identity 4 (if established) equal to the START value included in the latest transmitted CELL UPDATE message for the CN domain stored in the variable LATEST\_CONFIGURED\_CN\_DOMAIN.
- 2> if the CELL UPDATE CONFIRM message includes the IE "RLC re-establish indicator (RB5 and upwards)":
  - 3> for radio bearers with RB identity 5 and upwards:
    - 4> re-establish the AM RLC entities;
    - 4> if the value of the IE "Status" in the variable CIPHERING\_STATUS of the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED\_RABS is set to "Started":
      - 5> set the HFN component of the respective COUNT-C values for AM RLC entities equal to the START value included in this CELL UPDATE message for the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED\_RABS.
- 1> if the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message contained the IE "Ciphering mode info" or contained the IE "Integrity protection mode info":
  - 2> set the IE "Status" in the variable SECURITY\_MODIFICATION for all the CN domains in the variable SECURITY MODIFICATION to "Affected".
- 1> enter a state according to subclause 8.6.3.3 applied on the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message.

If the UE after state transition enters CELL DCH state, it shall:

1> not prohibit periodical status transmission in RLC.

If the UE after state transition remains in CELL\_FACH state, it shall

- 1> start the timer T305 using its initial value if timer T305 is not running and periodical cell update has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity";
- 1> select PRACH according to subclause 8.5.17;
- 1> select Secondary CCPCH according to subclause 8.5.19;
- 1> not prohibit periodical status transmission in RLC;
- 1> if the IE "UTRAN DRX cycle length coefficient" is included in the same message:
  - 2> ignore that IE and stop using DRX.

If the UE after state transition enters URA\_PCH or CELL\_PCH state, it shall:

- 1> prohibit periodical status transmission in RLC;
- 1> clear the variable C\_RNTI;
- 1> stop using that C\_RNTI just cleared from the variable C\_RNTI in MAC;
- 1> start the timer T305 using its initial value if timer T305 is not running and periodical update has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity";
- 1> select Secondary CCPCH according to subclause 8.5.19;
- 1> if the IE "UTRAN DRX cycle length coefficient" is included in the same message:
  - 2> use the value in the IE "UTRAN DRX Cycle length coefficient" for calculating Paging Occasion and PICH Monitoring Occasion as specified in subclause 8.6.3.2 in CELL\_PCH state.
- 1> if the IE "UTRAN DRX cycle length coefficient" is not included in the same message:

- 2> set the variable INVALID\_CONFIGURATION to TRUE.
- If the UE after the state transition remains in CELL FACH state; and
  - 1> the contents of the variable C\_RNTI are empty:
- it shall check the value of V302; and:
  - 1> if V302 is equal to or smaller than N302:
    - 2> if, caused by the received CELL UPDATE CONFIRM or URA UPDATE CONFIRM message:
      - 3> the IE "Reconfiguration" in the variable CIPHERING\_STATUS is set to TRUE; and/or
      - 3> the IE "Reconfiguration" in the variable INTEGRITY\_PROTECTION\_INFO is set to TRUE:
        - 4> abort the ongoing integrity and/or ciphering reconfiguration;
        - 4> if the received CELL UPDATE CONFIRM or URA UPDATE CONFIRM message contained the IE "Ciphering mode info":
          - 5> set the IE "Reconfiguration" in the variable CIPHERING\_STATUS to FALSE; and
          - 5> clear the variable RB\_UPLINK\_CIPHERING\_ACTIVATION\_TIME\_INFO.
        - 4> if the received CELL UPDATE CONFIRM or URA UPDATE CONFIRM message contained the IE "Integrity protection mode info":
          - 5> set the IE "Reconfiguration" in the variable INTEGRITY\_PROTECTION\_INFO to FALSE; and
          - 5> clear the variable INTEGRITY\_PROTECTION\_ACTIVATION\_INFO.
    - 2> in case of a URA update procedure:
      - 3> stop the URA update procedure; and
      - 3> continue with a cell update procedure.
    - 2> set the contents of the CELL UPDATE message according to subclause 8.3.1.3, except for the IE "Cell update cause" which shall be set to "cell reselection";
    - 2> submit the CELL UPDATE message for transmission on the uplink CCCH;
    - 2> increment counter V302;
    - 2> restart timer T302 when the MAC layer indicates success or failure to transmit the message.
  - 1> if V302 is greater than N302:
    - 2> clear the variable RB\_UPLINK\_CIPHERING\_ACTIVATION\_TIME\_INFO;
    - 2> clear the variable INTEGRITY\_PROTECTION\_ACTIVATION\_INFO;
    - 2> in case of a cell update procedure:
      - 3> clear the entry for the CELL UPDATE CONFIRM message in the table "Rejected transactions" in the variable TRANSACTIONS.
    - 2> in case of a URA update procedure:
      - 3> clear the entry for the URA UPDATE CONFIRM message in the table "Rejected transactions" in the variable TRANSACTIONS.
    - 2> release all its radio resources;
    - 2> indicate release (abort) of the established signalling connections (as stored in the variable ESTABLISHED\_SIGNALLING\_CONNECTIONS) and established radio access bearers (as stored in the variable ESTABLISHED\_RABS) to upper layers;

- 2> clear the variable ESTABLISHED\_SIGNALLING\_CONNECTIONS;
- 2> clear the variable ESTABLISHED\_RABS;
- 2> enter idle mode;
- 2> other actions the UE shall perform when entering idle mode from connected mode are specified in subclause 8.5.2;
- 2> and the procedure ends.

If the UE after the state transition remains in CELL\_FACH state; and

- a C-RNTI is stored in the variable C\_RNTI;

or

- the UE after the state transition moves to another state than the CELL\_FACH state:

- 1> if the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message contained the IE "Ciphering mode info":
  - 2> include and set the IE "Radio bearer uplink ciphering activation time info" in any response message transmitted below to the value of the variable RB\_UPLINK\_CIPHERING\_ACTIVATION\_TIME\_INFO.
- 1> in case of a cell update procedure:
  - 2> set the IE "RRC transaction identifier" in any response message transmitted below to the value of "RRC transaction identifier" in the entry for the CELL UPDATE CONFIRM message in the table "Accepted transactions" in the variable TRANSACTIONS; and
  - 2> clear that entry.
- 1> in case of a URA update procedure:
  - 2> set the IE "RRC transaction identifier" in any response message transmitted below to the value of "RRC transaction identifier" in the entry for the URA UPDATE CONFIRM message in the table "Accepted transactions" in the variable TRANSACTIONS; and
  - 2> clear that entry;
- 1> if the variable PDCP\_SN\_INFO is non-empty:
  - 2> include the IE "RB with PDCP information list" in any response message transmitted below and set it to the value of the variable PDCP\_SN\_INFO.
- 1> if the received CELL UPDATE CONFIRM or URA UPDATE CONFIRM message included the IE "Downlink counter synchronisation info":
  - 2> re-establish RB2;
  - 2> set the new uplink and downlink HFN component of the COUNT-C of RB2 to MAX(uplink HFN component of the COUNT-C of RB2, downlink HFN component of the COUNT-C of RB2);
  - 2> increment by one the downlink and uplink values of the HFN component of the COUNT-C for RB2;
  - 2> calculate the START value according to subclause 8.5.9;
  - 2> include the calculated START values for each CN domain in the IE "START list" in the IE "Uplink counter synchronisation info" in any response message transmitted below.
- 1> transmit a response message as specified in subclause 8.3.1.7;
- 1> if the IE "Integrity protection mode info" was present in the CELL UPDATE CONFIRM or URA UPDATE CONFIRM message:

- 2> start applying the new integrity protection configuration in the uplink for signalling radio bearer RB2 from and including the transmitted response message.
- 1> if the variable ORDERED\_RECONFIGURATION is set to TRUE caused by the received CELL UPDATE CONFIRM message in case of a cell update procedure:
  - 2> set the variable ORDERED\_RECONFIGURATION to FALSE.
- 1> clear the variable PDCP\_SN\_INFO;
- 1> when the response message transmitted per subclause 8.3.1.7 to the UTRAN has been confirmed by RLC:
  - 2> if the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message contained the IE "Ciphering mode info":
    - 3> resume data transmission on any suspended radio bearer and signalling radio bearer mapped on RLC-AM or RLC-UM;
    - 3> set the IE "Reconfiguration" in the variable CIPHERING\_STATUS to FALSE; and
    - 3> clear the variable RB\_UPLINK\_CIPHERING\_ACTIVATION\_TIME\_INFO.
  - 2> if the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message contained the IE "Integrity protection mode info":
    - 3> set "Uplink RRC Message sequence number" for signalling radio bearer RB0 in the variable INTEGRITY\_PROTECTION\_INFO to a value such that next RRC message to be sent on uplink RB0 will use the new integrity protection configuration;
    - 3> allow the transmission of RRC messages on all signalling radio bearers with any RRC SN;
    - 3> set the IE "Reconfiguration" in the variable INTEGRITY\_PROTECTION\_INFO to FALSE.
  - 2> clear the variable INTEGRITY\_PROTECTION\_ACTIVATION\_INFO.
- 1> in case of a cell update procedure:
  - 2> clear the entry for the CELL UPDATE CONFIRM message in the table "Rejected transactions" in the variable TRANSACTIONS.
- 1> in case of a URA update procedure:
  - 2> clear the entry for the URA UPDATE CONFIRM message in the table "Rejected transactions" in the variable TRANSACTIONS.
- 1> set the variable CELL\_UPDATE\_STARTED to FALSE;
- 1> clear the variable SECURITY\_MODIFICATION.

The procedure ends.

(Release 6)

# 3GPP TSG- RAN WG2 Meeting #31 Stockholm, Sweden, 19 - 23 August 2002

		CHANG	GE REQ	UE	ST	-		CR-Form-v7
ж	25.331 CF	1588	жrev	-	¥	Current version:	3.11.0	¥
For <u>HELI</u>	on using this form, s	ee bottom of	f this page or	look	at th	ne pop-up text ove	r the ≭ syr	mbols.

ME X Radio Access Network X Core Network UICC apps# Proposed change affects: Title: ★ Correction to RLC unrecoverable error occurs in CELL DCH state TSG-RAN WG2 Source: Date: # 21/08/2002 Release: # R99 Category: Use one of the following releases: Use one of the following categories: F (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) (Release 1999) **D** (editorial modification) R99 Detailed explanations of the above categories can Rel-4 (Release 4) be found in 3GPP TR 21.900. Rel-5 (Release 5) Rel-6

1.According to current text, the UE shall treat both the cases of RL failure and Reason for change: # RLC unrecoverable error on DCH state with the same way as specified in subclause 8.3.1.2. However, the RL failure and RLC unrecoverable error have some essential differences, e.g. the RLC unrecoverable error can possibly be recovered to initial condition by RLC re-establishment, but RL failure can not. The usage of T314/T315 for RLC unrecoverable error on dedicated channel is not proper because this may lead to some normal RABs (i.e. services or applications) to be released before the RLC is reestablished if the timers T314/T315 are shorter than the time period of performing RLC re-establishment. Besides, according to section 13.1, the timer T314 and T314 are designed for RL faiure case only. 2.For consistency, when release all radio bearers associated with T314/T315 that is set zero, the UE shall also indicate release of those radio access bearers to upper layers and delete all information about those radio access bearers from the variable ESTABLISHED RABS. 3.1. According to section 8.3.1.6, the UE shall handle both the IE "RLC reestablish indicator (RB2, RB3 and RB4)" and IE "RLC re-establish indicator (RB5 and upwards)" if received in the CELL UPDATE CONFIRM message. However, section 8.3.1.5 only states that the UTRAN should optionally include the IE "RLC re-establish indicator (RB5 and upwards)" in the CELL UPDATE CONFIRM message. This makes the IE "RLC re-establish indicator (RB2, RB3 and RB4)" become useless, and will prohibit the UTRAN to reestablish the RLC entities for SRB2, SRB3 and SRB4 (if established) even if the UTRAN would like to do this. 4.2. Both the IE "RLC re-establish indicator (RB2, RB3 and RB4)" and IE "RLC

re-establish indicator (RB5 and upwards)" are 'MP', and the UE shall reestablish the corresponding RLC entities only if any of these two IEs is set to TRUE. However, the text in 8.3.1.6 may be misunderstood to that the UE shall always re-establish the corresponding RLC entities if any of these two IEs is included even if the IE is set to FALSE. This will cause the UE always re-establishes all the RLC entities.

Summary of change: # 1.The timer T314/T315 only apply to Radio link failure.

- 2. Explicitly state the UE shall indicate release of those radio access bearers to upper layers and delete all information about those radio access bearers from the variable ESTABLISHED RABS when release all radio bearers associated with T314/T315 that is set zero.
- Allow the UTRAN to include both IE "RLC re-establish indicator (RB2, RB3) and RB4)" and IE "RLC re-establish indicator (RB5 and upwards)" in the CELL UPDATE CONFIRM message.
- 4.2. Only if the received IE "RLC re-establish indicator (RB2, RB3 and RB4)" and/or IE "RLC re-establish indicator (RB5 and upwards)" is set to TRUE, the UE shall re-establish the corresponding RLC entities. And add notes into section 10.2.8 to state "Although this IE is not always required, need is MP to align with ASN.1".

Isolated Impact Analysis: Proposed change has an isolated impact.

- Corrected functionality: RLC unrecoverable error occurs in CELL\_DCH state
- Correction to a function where the specification:
  - ambiguous or not sufficiently explicit.
- Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

# Consequences if not approved:

1. Some normal RABs (i.e. services or applications) will be released before the RLC is re-established if the timers T314/T315 are shorter than the time period of performing RLC re-establishment.

2. The memory might be filled with obsolete information, and further, NAS can be potentially not know about the current establishment condition of the RABs 31. The IE "RLC re-establish indicator (RB2, RB3 and RB4)" becomes useless, and the UTRAN will be prohibited to re-establish the RLC entities for SRB2, SRB3 and SRB4.

42. The UE might re-establish all the RLC entities.

#### Clauses affected: **8.3.1.2.** 8.3.1.5. 8.3.1.6<del>. 10.2.8</del> Other specs $\mathfrak{R}$ X Other core specifications $\mathfrak{R}$ affected: Test specifications **O&M Specifications** Other comments: $\mathfrak{R}$

# How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <a href="http://www.3gpp.org/specs/CR.htm">http://www.3gpp.org/specs/CR.htm</a>. 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
- 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  $\underline{\text{ftp://ftp.3gpp.org/specs/}}$  For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

# 8.3.1.2 Initiation

A UE shall initiate the cell update procedure in the following cases:

- 1> Uplink data transmission:
  - 2> if the UE is in URA\_PCH or CELL\_PCH state; and
  - 2> if the UE has uplink RLC data PDU or uplink RLC control PDU on RB1 or upwards to transmit:
    - 3> perform cell update using the cause "uplink data transmission".

# 1> Paging response:

- 2> if the criteria for performing cell update with the cause specified above in the current subclause is not met; and
- 2> if the UE in URA\_PCH or CELL\_PCH state, receives a PAGING TYPE 1 message fulfilling the conditions for initiating a cell update procedure specified in subclause 8.1.2.3:
  - 3> perform cell update using the cause "paging response".

### 1> Radio link failure:

- 2> if none of the criteria for performing cell update with the causes specified above in the current subclause is met; and
- 2> if the UE is in CELL\_DCH state; and
- 2> if the criteria for radio link failure is met as specified in subclause 8.5.6:
  - 3> perform cell update using the cause "radio link failure".

# 1> Re-entering service area:

- 2> if none of the criteria for performing cell update with the causes specified above in the current subclause is met; and
- 2> if the UE is in CELL\_FACH or CELL\_PCH state; and
- 2> if the UE has been out of service area and re-enters service area before T307 or T317 expires:
  - 3> perform cell update using the cause "re-entering service area".

# 1> RLC unrecoverable error:

- 2> if none of the criteria for performing cell update with the causes specified above in the current subclause is met: and
- 2> if the UE detects RLC unrecoverable error [16] in an AM RLC entity:
  - 3> perform cell update using the cause "RLC unrecoverable error".

# 1> Cell reselection:

- 2> if none of the criteria for performing cell update with the causes specified above in the current subclause is met:
  - 3> if the UE is in CELL\_FACH or CELL\_PCH state and the UE performs cell re-selection; or
  - 3> if the UE is in CELL FACH state and the variable C RNTI is empty:
    - 4> perform cell update using the cause "cell reselection".

# 1> Periodical cell update:

- 2> if none of the criteria for performing cell update with the causes specified above in the current subclause is met; and
- 2> if the UE is in CELL\_FACH or CELL\_PCH state; and
- 2> if the timer T305 expires; and
- 2> if the criteria for "in service area" as specified in subclause 8.5.5.2 is fulfilled; and
- 2> if periodic updating has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity":
  - 3> perform cell update using the cause "periodical cell update".

# A UE in URA\_PCH state shall initiate the URA update procedure in the following cases:

- 1> URA reselection:
  - 2> if the UE detects that the current URA assigned to the UE, stored in the variable URA\_IDENTITY, is not present in the list of URA identities in system information block type 2; or
  - 2> if the list of URA identities in system information block type 2 is empty; or
  - 2> if the system information block type 2 can not be found:
    - 3> perform URA update using the cause "change of URA".
- 1> Periodic URA update:
  - 2> if the criteria for performing URA update with the causes as specified above in the current subclause are not met; and
  - 2> if the timer T305 expires while the UE is in the service area; and
  - 2> if periodic updating has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity":
    - 3> perform URA update using the cause "periodic URA update".

When initiating the URA update or cell update procedure, the UE shall:

- 1> stop timer T305;
- 1> if the UE is in CELL\_DCH state:
  - 2> in the variable RB TIMER INDICATOR, set the IE "T314 expired" and the IE "T315 expired" to FALSE;
  - 2> if the stored values of the timer T314 and timer T315 are both equal to zero; or
  - 2> if the stored value of the timer T314 is equal to zero and there are no radio bearers associated with any radio access bearers for which in the variable ESTABLISHED\_RABS the value of the IE "Re-establishment timer" is set to "useT315":
    - 3> release all its radio resources;
    - 3> indicate release (abort) of the established signalling connections (as stored in the variable ESTABLISHED\_SIGNALLING\_CONNECTIONS) and established radio access bearers (as stored in the variable ESTABLISHED\_RABS) to upper layers;
    - 3> clear the variable ESTABLISHED\_SIGNALLING\_CONNECTIONS;
    - 3> clear the variable ESTABLISHED\_RABS;
    - 3> enter idle mode;
    - 3> perform other actions when entering idle mode from connected mode as specified in subclause 8.5.2;
    - 3> and the procedure ends.

- 2> if the stored value of the timer T314 is equal to zero:
  - 3> release all radio bearers, associated with any radio access bearers for which in the variable ESTABLISHED\_RABS the value of the IE "Re-establishment timer" is set to "useT314";
  - 3> in the variable RB\_TIMER\_INDICATOR set the IE "T314 expired" to TRUE.
- 2> if the stored value of the timer T315 is equal to zero:
  - 3> release all radio bearers associated with any radio access bearers for which in the variable ESTABLISHED\_RABS the value of the IE "Re-establishment timer" is set to "useT315";
  - 3> in the variable RB\_TIMER\_INDICATOR set the IE "T315 expired" to TRUE.
- 2> if the stored value of the timer T314 is greater than zero:
  - 3> if there are radio bearers associated with any radio access bearers for which in the variable ESTABLISHED\_RABS the value of the IE "Re-establishment timer" is set to "useT314":
    - 4> start timer T314.
  - 3> if there are no radio bearers associated with any radio access bearers for which in the variable ESTABLISHED\_RABS the value of the IE "Re-establishment timer" is set to "useT314" or "useT315":
    - 4> start timer T314.
- 2> if the stored value of the timer T315 is greater than zero:
  - 3> if there are radio bearers associated with any radio access bearers for which in the variable ESTABLISHED\_RABS the value of the IE "Re-establishment timer" is set to "useT315":
    - 4> start timer T315.
- 2> for the released radio bearer(s):
  - 3> delete the information about the radio bearer from the variable ESTABLISHED\_RABS;
  - 3> when all radio bearers belonging to the same radio access bearer have been released:
    - 4> indicate local end release of the radio access bearer to upper layers using the CN domain identity together with the RAB identity stored in the variable ESTABLISHED\_RABS;
    - 4> delete all information about the radio access bearer from the variable ESTABLISHED\_RABS.
- 2> select a suitable UTRA cell according to [4];
- 2> set the variable ORDERED\_RECONFIGURATION to FALSE.
- 1> set the variables PROTOCOL\_ERROR\_INDICATOR, FAILURE\_INDICATOR, UNSUPPORTED\_CONFIGURATION and INVALID\_CONFIGURATION to FALSE;
- 1> set the variable CELL\_UPDATE\_STARTED to TRUE;
- 1> if the UE is not already in CELL\_FACH state:
  - 2> move to CELL\_FACH state;
  - 2> select PRACH according to subclause 8.5.17;
  - 2> select Secondary CCPCH according to subclause 8.5.19;
  - 2> use the transport format set given in system information as specified in subclause 8.6.5.1.
- 1> if the UE performs cell re-selection:
  - 2> clear the variable C RNTI; and
  - 2> stop using that C\_RNTI just cleared from the variable C\_RNTI in MAC.

- 1> set CFN in relation to SFN of current cell according to subclause 8.5.15;
- 1> in case of a cell update procedure:
  - 2> set the contents of the CELL UPDATE message according to subclause 8.3.1.3;
  - 2> submit the CELL UPDATE message for transmission on the uplink CCCH.
- 1> in case of a URA update procedure:
  - 2> set the contents of the URA UPDATE message according to subclause 8.3.1.3;
  - 2> submit the URA UPDATE message for transmission on the uplink CCCH.
- 1> set counter V302 to 1;
- 1> start timer T302 when the MAC layer indicates success or failure in transmitting the message.

# 8.3.1.5 Reception of an CELL UPDATE/URA UPDATE message by the UTRAN

When the UTRAN receives a CELL UPDATE/URA UPDATE message, the UTRAN should:

- 1> in case the procedure was triggered by reception of a CELL UPDATE:
  - 2> if SRNS relocation was performed:
    - 3> transmit a CELL UPDATE CONFIRM message on the downlink DCCH.
  - 2> otherwise:
    - 3> update the START value for each CN domain as maintained in UTRAN (refer to subclause 8.5.9) with "START" in the IE "START list" for the CN domain as indicated by "CN domain identity" in the IE "START list";
    - 3> if this procedure was triggered while the UE was not in CELL\_DCH state, then for each CN domain as indicated by "CN domain identity" in the IE "START list":
      - 4> set the 20 MSB of the MAC-d HFN with the corresponding START value in the IE "START list";
      - 4> set the remaining LSB of the MAC-d HFN to zero.
    - 3> transmit a CELL UPDATE CONFIRM message on the downlink DCCH or optionally on the CCCH but only if ciphering is not required; and
    - 3> optionally include set the IE "RLC re-establish indicator (RB2, RB3 and RB4)" and/or the IE "RLC re-establish indicator (RB5 and upwards)" to TRUE to request a RLC re-establishment in the UE, in which case the corresponding RLC entities should also be re-established in UTRAN; or
- 1> in case the procedure was triggered by reception of a URA UPDATE:
  - 2> if SRNS relocation was performed:
    - 3> transmit a URA UPDATE CONFIRM message on the downlink DCCH.
  - 2> otherwise:
    - 3> transmit a URA UPDATE CONFIRM message on the downlink CCCH or DCCH.
  - 2> include the IE "URA identity" in the URA UPDATE CONFIRM message in a cell where multiple URA identifiers are broadcast; or
- 1> initiate an RRC connection release procedure (see subclause 8.1.4) by transmitting an RRC CONNECTION RELEASE message on the downlink CCCH. In particular UTRAN should:
  - 2> if the CELL UPDATE message was sent because of an unrecoverable error in RB2, RB3 or RB4:
    - 3> initiate an RRC connection release procedure (subclause 8.1.4) by transmitting an RRC CONNECTION RELEASE message on the downlink CCCH.

UTRAN may transmit several CELL UPDATE CONFIRM/URA UPDATE CONFIRM messages to increase the probability of proper reception of the message by the UE. In such a case, the RRC SN for these repeated messages should be the same.

# 8.3.1.6 Reception of the CELL UPDATE CONFIRM/URA UPDATE CONFIRM message by the UE

When the UE receives a CELL UPDATE CONFIRM/URA UPDATE CONFIRM message; and

- if the message is received on the CCCH, and IE "U-RNTI" is present and has the same value as the variable U RNTI; or
- if the message is received on DCCH:

- 1> stop timer T302;
- 1> in case of a cell update procedure and the CELL UPDATE CONFIRM message:
  - 2> includes "RB information elements"; and/or
  - 2> includes "Transport channel information elements"; and/or
  - 2> includes "Physical channel information elements"; and
  - 2> if the variable ORDERED RECONFIGURATION is set to FALSE:
    - 3> set the variable ORDERED RECONFIGURATION to TRUE.
- 1> act upon all received information elements as specified in subclause 8.6, unless specified otherwise in the following:
  - 2> if the IE "Frequency info" is included in the message:
    - 3> if the IE "RRC State Indicator" is set to the value "CELL\_FACH" or "CELL\_PCH" or URA\_PCH":
      - 4> select a suitable UTRA cell according to [4] on that frequency;
      - 4> act as specified in subclause 8.3.1.12.
    - 3> if the IE "RRC State Indicator" is set to the value "CELL\_DCH":
      - 4> act on the IE "Frequency info" as specified in subclause 8.6.6.1.
  - 2> use the transport channel(s) applicable for the physical channel types that is used; and
  - 2> if the IE "TFS" is neither included nor previously stored in the UE for that transport channel(s):
    - 3> use the TFS given in system information.
  - 2> if none of the TFS stored is compatible with the physical channel:
    - 3> delete the stored TFS;
    - 3> use the TFS given in system information.
  - 2> perform the physical layer synchronisation procedure as specified in [29];
  - 2> if the CELL UPDATE CONFIRM message includes the IE "RLC re-establish indicator (RB2, RB3 and RB4)" in the CELL UPDATE CONFIRM message and it is set to TRUE:
    - 3> re-establish the RLC entities for signalling radio bearer RB2, signalling radio bearer RB3 and signalling radio bearer RB4 (if established);
    - 3> if the value of the IE "Status" in the variable CIPHERING\_STATUS of the CN domain stored in the variable LATEST\_CONFIGURED\_CN\_DOMAIN is set to "Started":
      - 4> set the HFN component of the respective COUNT-C values for AM RLC entities with RB identity 2,RB identity 3 and RB identity 4 (if established) equal to the START value included in the latest

transmitted CELL UPDATE message for the CN domain stored in the variable LATEST\_CONFIGURED\_CN\_DOMAIN.

- 2> if the CELL UPDATE CONFIRM message includes the IE "RLC re-establish indicator (RB5 and upwards)" in the CELL UPDATE CONFIRM message and it is set to TRUE:
  - 3> for radio bearers with RB identity 5 and upwards:
    - 4> re-establish the AM RLC entities;
    - 4> if the value of the IE "Status" in the variable CIPHERING\_STATUS of the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED\_RABS is set to "Started":
      - 5> set the HFN component of the respective COUNT-C values for AM RLC entities equal to the START value included in this CELL UPDATE message for the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED\_RABS.
- 1> if the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message contained the IE "Ciphering mode info" or contained the IE "Integrity protection mode info":
  - 2> set the IE "Status" in the variable SECURITY\_MODIFICATION for all the CN domains in the variable SECURITY\_MODIFICATION to "Affected".
- 1> enter a state according to subclause 8.6.3.3 applied on the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message.

If the UE after state transition enters CELL\_DCH state, it shall:

1> not prohibit periodical status transmission in RLC.

If the UE after state transition remains in CELL\_FACH state, it shall

- 1> start the timer T305 using its initial value if timer T305 is not running and periodical cell update has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity";
- 1> select PRACH according to subclause 8.5.17;
- 1> select Secondary CCPCH according to subclause 8.5.19;
- 1> not prohibit periodical status transmission in RLC;
- 1> if the IE "UTRAN DRX cycle length coefficient" is included in the same message:
  - 2> ignore that IE and stop using DRX.

If the UE after state transition enters URA\_PCH or CELL\_PCH state, it shall:

- 1> prohibit periodical status transmission in RLC;
- 1> clear the variable C\_RNTI;
- 1> stop using that C\_RNTI just cleared from the variable C\_RNTI in MAC;
- 1> start the timer T305 using its initial value if timer T305 is not running and periodical update has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity";
- 1> select Secondary CCPCH according to subclause 8.5.19;
- 1> if the IE "UTRAN DRX cycle length coefficient" is included in the same message:
  - 2> use the value in the IE "UTRAN DRX Cycle length coefficient" for calculating Paging Occasion and PICH Monitoring Occasion as specified in subclause 8.6.3.2 in CELL\_PCH state.
- 1> if the IE "UTRAN DRX cycle length coefficient" is not included in the same message:

- 2> set the variable INVALID\_CONFIGURATION to TRUE.
- If the UE after the state transition remains in CELL FACH state; and
  - 1> the contents of the variable C\_RNTI are empty:
- it shall check the value of V302; and:
  - 1> if V302 is equal to or smaller than N302:
    - 2> if, caused by the received CELL UPDATE CONFIRM or URA UPDATE CONFIRM message:
      - 3> the IE "Reconfiguration" in the variable CIPHERING\_STATUS is set to TRUE; and/or
      - 3> the IE "Reconfiguration" in the variable INTEGRITY\_PROTECTION\_INFO is set to TRUE:
        - 4> abort the ongoing integrity and/or ciphering reconfiguration;
        - 4> if the received CELL UPDATE CONFIRM or URA UPDATE CONFIRM message contained the IE "Ciphering mode info":
          - 5> set the IE "Reconfiguration" in the variable CIPHERING\_STATUS to FALSE; and
          - 5> clear the variable RB\_UPLINK\_CIPHERING\_ACTIVATION\_TIME\_INFO.
        - 4> if the received CELL UPDATE CONFIRM or URA UPDATE CONFIRM message contained the IE "Integrity protection mode info":
          - 5> set the IE "Reconfiguration" in the variable INTEGRITY\_PROTECTION\_INFO to FALSE; and
          - 5> clear the variable INTEGRITY\_PROTECTION\_ACTIVATION\_INFO.
    - 2> in case of a URA update procedure:
      - 3> stop the URA update procedure; and
      - 3> continue with a cell update procedure.
    - 2> set the contents of the CELL UPDATE message according to subclause 8.3.1.3, except for the IE "Cell update cause" which shall be set to "cell reselection";
    - 2> submit the CELL UPDATE message for transmission on the uplink CCCH;
    - 2> increment counter V302;
    - 2> restart timer T302 when the MAC layer indicates success or failure to transmit the message.
  - 1> if V302 is greater than N302:
    - 2> clear the variable RB\_UPLINK\_CIPHERING\_ACTIVATION\_TIME\_INFO;
    - 2> clear the variable INTEGRITY\_PROTECTION\_ACTIVATION\_INFO;
    - 2> in case of a cell update procedure:
      - 3> clear the entry for the CELL UPDATE CONFIRM message in the table "Rejected transactions" in the variable TRANSACTIONS.
    - 2> in case of a URA update procedure:
      - 3> clear the entry for the URA UPDATE CONFIRM message in the table "Rejected transactions" in the variable TRANSACTIONS.
    - 2> release all its radio resources;
    - 2> indicate release (abort) of the established signalling connections (as stored in the variable ESTABLISHED\_SIGNALLING\_CONNECTIONS) and established radio access bearers (as stored in the variable ESTABLISHED\_RABS) to upper layers;

- 2> clear the variable ESTABLISHED\_SIGNALLING\_CONNECTIONS;
- 2> clear the variable ESTABLISHED\_RABS;
- 2> enter idle mode;
- 2> other actions the UE shall perform when entering idle mode from connected mode are specified in subclause 8.5.2;
- 2> and the procedure ends.

If the UE after the state transition remains in CELL\_FACH state; and

- a C-RNTI is stored in the variable C\_RNTI;

or

- the UE after the state transition moves to another state than the CELL\_FACH state:

- 1> if the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message contained the IE "Ciphering mode info":
  - 2> include and set the IE "Radio bearer uplink ciphering activation time info" in any response message transmitted below to the value of the variable RB\_UPLINK\_CIPHERING\_ACTIVATION\_TIME\_INFO.
- 1> in case of a cell update procedure:
  - 2> set the IE "RRC transaction identifier" in any response message transmitted below to the value of "RRC transaction identifier" in the entry for the CELL UPDATE CONFIRM message in the table "Accepted transactions" in the variable TRANSACTIONS; and
  - 2> clear that entry.
- 1> in case of a URA update procedure:
  - 2> set the IE "RRC transaction identifier" in any response message transmitted below to the value of "RRC transaction identifier" in the entry for the URA UPDATE CONFIRM message in the table "Accepted transactions" in the variable TRANSACTIONS; and
  - 2> clear that entry;
- 1> if the variable PDCP\_SN\_INFO is non-empty:
  - 2> include the IE "RB with PDCP information list" in any response message transmitted below and set it to the value of the variable PDCP\_SN\_INFO.
- 1> if the received CELL UPDATE CONFIRM or URA UPDATE CONFIRM message included the IE "Downlink counter synchronisation info":
  - 2> re-establish RB2;
  - 2> set the new uplink and downlink HFN component of the COUNT-C of RB2 to MAX(uplink HFN component of the COUNT-C of RB2, downlink HFN component of the COUNT-C of RB2);
  - 2> increment by one the downlink and uplink values of the HFN component of the COUNT-C for RB2;
  - 2> calculate the START value according to subclause 8.5.9;
  - 2> include the calculated START values for each CN domain in the IE "START list" in the IE "Uplink counter synchronisation info" in any response message transmitted below.
- 1> transmit a response message as specified in subclause 8.3.1.7;
- 1> if the IE "Integrity protection mode info" was present in the CELL UPDATE CONFIRM or URA UPDATE CONFIRM message:

- 2> start applying the new integrity protection configuration in the uplink for signalling radio bearer RB2 from and including the transmitted response message.
- 1> if the variable ORDERED\_RECONFIGURATION is set to TRUE caused by the received CELL UPDATE CONFIRM message in case of a cell update procedure:
  - 2> set the variable ORDERED\_RECONFIGURATION to FALSE.
- 1> clear the variable PDCP\_SN\_INFO;
- 1> when the response message transmitted per subclause 8.3.1.7 to the UTRAN has been confirmed by RLC:
  - 2> if the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message contained the IE "Ciphering mode info":
    - 3> resume data transmission on any suspended radio bearer and signalling radio bearer mapped on RLC-AM or RLC-UM;
    - 3> set the IE "Reconfiguration" in the variable CIPHERING\_STATUS to FALSE; and
    - 3> clear the variable RB\_UPLINK\_CIPHERING\_ACTIVATION\_TIME\_INFO.
  - 2> if the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message contained the IE "Integrity protection mode info":
    - 3> set "Uplink RRC Message sequence number" for signalling radio bearer RB0 in the variable INTEGRITY\_PROTECTION\_INFO to a value such that next RRC message to be sent on uplink RB0 will use the new integrity protection configuration;
    - 3> allow the transmission of RRC messages on all signalling radio bearers with any RRC SN;
    - 3> set the IE "Reconfiguration" in the variable INTEGRITY\_PROTECTION\_INFO to FALSE.
  - 2> clear the variable INTEGRITY\_PROTECTION\_ACTIVATION\_INFO.
- 1> in case of a cell update procedure:
  - 2> clear the entry for the CELL UPDATE CONFIRM message in the table "Rejected transactions" in the variable TRANSACTIONS.
- 1> in case of a URA update procedure:
  - 2> clear the entry for the URA UPDATE CONFIRM message in the table "Rejected transactions" in the variable TRANSACTIONS.
- 1> set the variable CELL\_UPDATE\_STARTED to FALSE;
- 1> clear the variable SECURITY\_MODIFICATION.

The procedure ends.

# 10.2.8 CELL UPDATE CONFIRM

This message confirms the cell update procedure and can be used to reallocate new RNTI information for the UE valid in the new cell.

RLC-SAP: UM

Logical channel: CCCH or DCCH

Direction: UTRAN→UE

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Message Type	MP		Message	
· .			Туре	
<b>UE Information Elements</b>				
U-RNTI	CV-CCCH		U-RNTI	
			10.3.3.47	
RRC transaction identifier	MP		RRC	
			transaction	
			identifier	
			10.3.3.36	
Integrity check info	СН		Integrity	
			check info	
Lata with a patenting and defen	OD		10.3.3.16	
Integrity protection mode info	OP		Integrity	
			protection mode info	
			10.3.3.19	
Ciphering mode info	OP		Ciphering	
Ciprieting mode into	OF		mode info	
			10.3.3.5	
Activation time	MD		Activation	Default value is "now"
Activation time	IVID		time 10.3.3.1	Delault value is 110W
New U-RNTI	OP		U-RNTI	
New O MATT	O.		10.3.3.47	
New C-RNTI	OP		C-RNTI	
New O MATT	O.		10.3.3.8	
New DSCH-RNTI	OP		DSCH-RNTI	
			10.3.3.9a	
RRC State Indicator	MP		RRC State	
			Indicator	
			10.3.3.35a	
UTRAN DRX cycle length	OP		UTRAN DRX	
coefficient			cycle length	
			coefficient	
			10.3.3.49	
RLC re-establish indicator (RB2,	MP		RLC re-	
RB3 and RB4)			establish	
			indicator	
			10.3.3.35	
RLC re-establish indicator (RB5	MP		RLC re-	
and upwards)			establish	
			indicator	
CN Information Elements			10.3.3.35	
CN Information Elements  CN Information info	OP		CN	
CIN IIIIOIIIIAUOII IIIIO	UF		Information	
			info 10.3.1.3	
UTRAN Information Elements			1110 10.0.1.3	
URA identity	OP		URA identity	
•			10.3.2.6	
RB information elements			<u> </u>	
RB information to release list	OP	1 to <maxrb></maxrb>		
>RB information to release	MP		RB	

Information Element/Group name	Need	Multi	Type and reference	Semantics description
			information to release 10.3.4.19	
RB information to reconfigure list	OP	1 to <maxrb></maxrb>	10.0.1.10	
>RB information to reconfigure	MP	Thur.	RB information to reconfigure 10.3.4.18	
RB information to be affected list	OP	1 to <maxrb></maxrb>		
>RB information to be affected	MP		RB information to be affected 10.3.4.17	
Downlink counter synchronisation info	OP			
>RB with PDCP information list	OP	1 to <maxrball RABs&gt;</maxrball 		This IE is needed for each RB having PDCP in the case of lossless SRNS relocation
>>RB with PDCP information	MP		RB with PDCP information 10.3.4.22	
TrCH Information Elements Uplink transport channels				
UL Transport channel information common for all transport channels	OP		UL Transport channel information common for all transport channels 10.3.5.24	
Deleted TrCH information list	OP	1 to <maxtrch &gt;</maxtrch 		
>Deleted UL TrCH information	MP		Deleted UL TrCH information 10.3.5.5	
Added or Reconfigured TrCH information list	OP	1 to <maxtrch &gt;</maxtrch 		
>Added or Reconfigured UL TrCH information	MP		Added or Reconfigure d UL TrCH information 10.3.5.2	
CHOICE mode	MP			
>FDD >>CPCH set ID	OP		CPCH set ID	
>>Added or Reconfigured TrCH information for DRAC list	OP	1 to <maxtrch< td=""><td>10.3.5.3</td><td></td></maxtrch<>	10.3.5.3	
>>>DRAC static information	MP		DRAC static information 10.3.5.7	
>TDD				(no data)
Downlink transport channels  DL Transport channel information common for all transport channels	OP		DL Transport channel information	

Information Element/Group name	Need	Multi	Type and reference	Semantics description
			common for all transport channels 10.3.5.6	
Deleted TrCH information list	OP	1 to <maxtrch< td=""><td></td><td></td></maxtrch<>		
>Deleted DL TrCH information	MP		Deleted DL TrCH information 10.3.5.4	
Added or Reconfigured TrCH information list	OP	1 to <maxtrch &gt;</maxtrch 		
>Added or Reconfigured DL TrCH information	MP		Added or Reconfigure d DL TrCH information 10.3.5.1	
PhyCH information elements				
Frequency info	MD		Frequency info 10.3.6.36	Default value is the existing value of frequency information
Uplink radio resources				
Maximum allowed UL TX power	MD		Maximum allowed UL TX power 10.3.6.39	Default value is the existing maximum UL TX power
CHOICE channel requirement	OP			
>Uplink DPCH info			Uplink DPCH info 10.3.6.88.	
>CPCH SET Info			CPCH SET Info 10.3.6.13	
Downlink radio resources				
CHOICE mode >FDD	MP			
>>Downlink PDSCH information	OP		Downlink PDSCH information 10.3.6.30	
>TDD				(no data)
Downlink information common for all radio links	OP		Downlink information common for all radio links 10.3.6.24	
Downlink information per radio link list	OP	1 to <maxrl></maxrl>		Send downlink information for each radio link to be set-up
>Downlink information for each radio link	MP		Downlink information for each radio link 10.3.6.27	

Condition	Explanation
CCCH	This IE is mandatory present when CCCH is used and
	ciphering is not required and not needed otherwise.

### 3GPP TSG- RAN WG2 Meeting #31 Stockholm, Sweden, 19 - 23 August 2002

		CHANG	SE REQ	UES1	7		CR-Form-v7
*	25.331	CR <mark>1589</mark>	<b>≭rev</b>	<b>-</b> #	Current version:	4.5.0	ж

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the \$\mathbb{K}\$ symbols.

Proposed change	ie a	ffects:	UICC apps#	М	E X Radio Acc	ess Netwo	rk X Core Network
Title:	ж	Correc	tion to RLC unreco	verable e	rror occurs in Cl	ELL_DCH	state
Source:	Ж	TSG-R	AN WG2				
Work item code:	H	TEI				Date: ₩	21/08/2002
Category:	Ж	Α			ı	Release: ೫	Rel-4
			of the following cate	gories:			the following releases:
		<b>F</b> (0	correction)			2	(GSM Phase 2)
		<b>A</b> (0	corresponds to a cor	rection in a	n earlier release)	R96	(Release 1996)
		<b>B</b> (8	addition of feature),			R97	(Release 1997)
		<b>C</b> (1	functional modificatio	n of featur	e)	R98	(Release 1998)
		D (6	editorial modification,	)		R99	(Release 1999)
		Detailed	explanations of the a	bove cate	gories can	Rel-4	(Release 4)
		be found	in 3GPP TR 21.900.		-	Rel-5	(Release 5)
						Rol-6	(Release 6)

Reason for change: # 1.According to current text, the UE shall treat both the cases of RL failure and RLC unrecoverable error on DCH state with the same way as specified in subclause 8.3.1.2. However, the RL failure and RLC unrecoverable error have some essential differences, e.g. the RLC unrecoverable error can possibly be recovered to initial condition by RLC re-establishment, but RL failure can not. The usage of T314/T315 for RLC unrecoverable error on dedicated channel is not proper because this may lead to some normal RABs (i.e. services or applications) to be released before the RLC is reestablished if the timers T314/T315 are shorter than the time period of performing RLC re-establishment. Besides, according to section 13.1, the timer T314 and T314 are designed for RL faiure case only. 2.For consistency, when release all radio bearers associated with T314/T315 that is set zero, the UE shall also indicate release of those radio access bearers to upper layers and delete all information about those radio access bearers from the variable ESTABLISHED RABS.

- 3.1. According to section 8.3.1.6, the UE shall handle both the IE "RLC reestablish indicator (RB2, RB3 and RB4)" and IE "RLC re-establish indicator (RB5 and upwards)" if received in the CELL UPDATE CONFIRM message. However, section 8.3.1.5 only states that the UTRAN should optionally include the IE "RLC re-establish indicator (RB5 and upwards)" in the CELL UPDATE CONFIRM message. This makes the IE "RLC re-establish indicator (RB2, RB3 and RB4)" become useless, and will prohibit the UTRAN to reestablish the RLC entities for SRB2, SRB3 and SRB4 (if established) even if the UTRAN would like to do this.
- 4.2. Both the IE "RLC re-establish indicator (RB2, RB3 and RB4)" and IE "RLC

re-establish indicator (RB5 and upwards)" are 'MP', and the UE shall reestablish the corresponding RLC entities only if any of these two IEs is set to TRUE. However, the text in 8.3.1.6 may be misunderstood to that the UE shall always re-establish the corresponding RLC entities if any of these two IEs is included even if the IE is set to FALSE. This will cause the UE always re-establishes all the RLC entities.

Summary of change: # 1.The timer T314/T315 only apply to Radio link failure.

- 2. Explicitly state the UE shall indicate release of those radio access bearers to upper layers and delete all information about those radio access bearers from the variable ESTABLISHED\_RABS when release all radio bearers associated with T314/T315 that is set zero.
- 3.1. Allow the UTRAN to include both IE "RLC re-establish indicator (RB2, RB3) and RB4)" and IE "RLC re-establish indicator (RB5 and upwards)" in the CELL UPDATE CONFIRM message.
- 4.2. Only if the received IE "RLC re-establish indicator (RB2, RB3 and RB4)" and/or IE "RLC re-establish indicator (RB5 and upwards)" is set to TRUE, the UE shall re-establish the corresponding RLC entities. And add notes into section 10.2.8 to state "Although this IE is not always required, need is MP to align with ASN.1".

#### Consequences if not approved:

- # 1. Some normal RABs (i.e. services or applications) will be released before the RLC is re-established if the timers T314/T315 are shorter than the time period of performing RLC re-establishment.
  - 2. The memory might be filled with obsolete information, and further, NAS can be potentially not know about the current establishment condition of the RABs. 31. The IE "RLC re-establish indicator (RB2, RB3 and RB4)" becomes useless, and the UTRAN will be prohibited to re-establish the RLC entities for SRB2, SRB3 and SRB4.
  - 42. The UE might re-establish all the RLC entities.

Clauses affected:	# <del>8.3.1.2,</del> 8.3.1.5, 8.3.1.6 <del>, 10.2.8</del>
Other specs affected:	Y N  X Other core specifications Test specifications
uncotcu.	X O&M Specifications
Other comments:	<b>x</b>

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

Comprehensive information and tips about how to create CRs can be found at <a href="http://www.3gpp.org/specs/CR.htm">http://www.3gpp.org/specs/CR.htm</a>. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked # contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

#### 8.3.1.2 Initiation

A UE shall initiate the cell update procedure in the following cases:

- 1> Uplink data transmission:
  - 2> if the UE is in URA\_PCH or CELL\_PCH state; and
  - 2> if the UE has uplink RLC data PDU or uplink RLC control PDU on RB1 or upwards to transmit:
    - 3> perform cell update using the cause "uplink data transmission".

#### 1> Paging response:

- 2> if the criteria for performing cell update with the cause specified above in the current subclause is not met; and
- 2> if the UE in URA\_PCH or CELL\_PCH state, receives a PAGING TYPE 1 message fulfilling the conditions for initiating a cell update procedure specified in subclause 8.1.2.3:
  - 3> perform cell update using the cause "paging response".

#### 1> Radio link failure:

- 2> if none of the criteria for performing cell update with the causes specified above in the current subclause is met; and
- 2> if the UE is in CELL\_DCH state; and
- 2> if the criteria for radio link failure is met as specified in subclause 8.5.6:
  - 3> perform cell update using the cause "radio link failure".

#### 1> Re-entering service area:

- 2> if none of the criteria for performing cell update with the causes specified above in the current subclause is met; and
- 2> if the UE is in CELL\_FACH or CELL\_PCH state; and
- 2> if the UE has been out of service area and re-enters service area before T307 or T317 expires:
  - 3> perform cell update using the cause "re-entering service area".

#### 1> RLC unrecoverable error:

- 2> if none of the criteria for performing cell update with the causes specified above in the current subclause is met: and
- 2> if the UE detects RLC unrecoverable error [16] in an AM RLC entity:
  - 3> perform cell update using the cause "RLC unrecoverable error".

#### 1> Cell reselection:

- 2> if none of the criteria for performing cell update with the causes specified above in the current subclause is met:
  - 3> if the UE is in CELL\_FACH or CELL\_PCH state and the UE performs cell re-selection; or
  - 3> if the UE is in CELL FACH state and the variable C RNTI is empty:
    - 4> perform cell update using the cause "cell reselection".

#### 1> Periodical cell update:

- 2> if none of the criteria for performing cell update with the causes specified above in the current subclause is met; and
- 2> if the UE is in CELL\_FACH or CELL\_PCH state; and
- 2> if the timer T305 expires; and
- 2> if the criteria for "in service area" as specified in subclause 8.5.5.2 is fulfilled; and
- 2> if periodic updating has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity":
  - 3> perform cell update using the cause "periodical cell update".

#### A UE in URA\_PCH state shall initiate the URA update procedure in the following cases:

- 1> URA reselection:
  - 2> if the UE detects that the current URA assigned to the UE, stored in the variable URA\_IDENTITY, is not present in the list of URA identities in system information block type 2; or
  - 2> if the list of URA identities in system information block type 2 is empty; or
  - 2> if the system information block type 2 can not be found:
    - 3> perform URA update using the cause "change of URA".
- 1> Periodic URA update:
  - 2> if the criteria for performing URA update with the causes as specified above in the current subclause are not met; and
  - 2> if the timer T305 expires while the UE is in the service area; and
  - 2> if periodic updating has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity":
    - 3> perform URA update using the cause "periodic URA update".

When initiating the URA update or cell update procedure, the UE shall:

- 1> stop timer T305;
- 1> if the UE is in CELL\_DCH state:
  - 2> in the variable RB TIMER INDICATOR, set the IE "T314 expired" and the IE "T315 expired" to FALSE;
  - 2> if the stored values of the timer T314 and timer T315 are both equal to zero; or
  - 2> if the stored value of the timer T314 is equal to zero and there are no radio bearers associated with any radio access bearers for which in the variable ESTABLISHED\_RABS the value of the IE "Re-establishment timer" is set to "useT315":
    - 3> release all its radio resources;
    - 3> indicate release (abort) of the established signalling connections (as stored in the variable ESTABLISHED\_SIGNALLING\_CONNECTIONS) and established radio access bearers (as stored in the variable ESTABLISHED\_RABS) to upper layers;
    - 3> clear the variable ESTABLISHED\_SIGNALLING\_CONNECTIONS;
    - 3> clear the variable ESTABLISHED\_RABS;
    - 3> enter idle mode;
    - 3> perform other actions when entering idle mode from connected mode as specified in subclause 8.5.2;
    - 3> and the procedure ends.

- 2> if the stored value of the timer T314 is equal to zero:
  - 3> release all radio bearers, associated with any radio access bearers for which in the variable ESTABLISHED\_RABS the value of the IE "Re-establishment timer" is set to "useT314";
  - 3> in the variable RB\_TIMER\_INDICATOR set the IE "T314 expired" to TRUE.
- 2> if the stored value of the timer T315 is equal to zero:
  - 3> release all radio bearers associated with any radio access bearers for which in the variable ESTABLISHED\_RABS the value of the IE "Re-establishment timer" is set to "useT315";
  - 3> in the variable RB\_TIMER\_INDICATOR set the IE "T315 expired" to TRUE.
- 2> if the stored value of the timer T314 is greater than zero:
  - 3> if there are radio bearers associated with any radio access bearers for which in the variable ESTABLISHED\_RABS the value of the IE "Re-establishment timer" is set to "useT314":
    - 4> start timer T314.
  - 3> if there are no radio bearers associated with any radio access bearers for which in the variable ESTABLISHED\_RABS the value of the IE "Re-establishment timer" is set to "useT314" or "useT315":
    - 4> start timer T314.
- 2> if the stored value of the timer T315 is greater than zero:
  - 3> if there are radio bearers associated with any radio access bearers for which in the variable ESTABLISHED\_RABS the value of the IE "Re-establishment timer" is set to "useT315":
    - 4> start timer T315.
- 2> for the released radio bearer(s):
  - 3> delete the information about the radio bearer from the variable ESTABLISHED\_RABS;
  - 3> when all radio bearers belonging to the same radio access bearer have been released:
    - 4> indicate local end release of the radio access bearer to upper layers using the CN domain identity together with the RAB identity stored in the variable ESTABLISHED\_RABS;
    - 4> delete all information about the radio access bearer from the variable ESTABLISHED\_RABS.
- 2> select a suitable UTRA cell according to [4];
- 2> set the variable ORDERED\_RECONFIGURATION to FALSE.
- 1> set the variables PROTOCOL\_ERROR\_INDICATOR, FAILURE\_INDICATOR, UNSUPPORTED\_CONFIGURATION and INVALID\_CONFIGURATION to FALSE;
- 1> set the variable CELL\_UPDATE\_STARTED to TRUE;
- 1> if the UE is not already in CELL\_FACH state:
  - 2> move to CELL\_FACH state;
  - 2> select PRACH according to subclause 8.5.17;
  - 2> select Secondary CCPCH according to subclause 8.5.19;
  - 2> use the transport format set given in system information as specified in subclause 8.6.5.1.
- 1> if the UE performs cell re-selection:
  - 2> clear the variable C RNTI; and
  - 2> stop using that C\_RNTI just cleared from the variable C\_RNTI in MAC.

- 1> set CFN in relation to SFN of current cell according to subclause 8.5.15;
- 1> in case of a cell update procedure:
  - 2> set the contents of the CELL UPDATE message according to subclause 8.3.1.3;
  - 2> submit the CELL UPDATE message for transmission on the uplink CCCH.
- 1> in case of a URA update procedure:
  - 2> set the contents of the URA UPDATE message according to subclause 8.3.1.3;
  - 2> submit the URA UPDATE message for transmission on the uplink CCCH.
- 1> set counter V302 to 1;
- 1> start timer T302 when the MAC layer indicates success or failure in transmitting the message.

#### 8.3.1.5 Reception of an CELL UPDATE/URA UPDATE message by the UTRAN

When the UTRAN receives a CELL UPDATE/URA UPDATE message, the UTRAN should:

- 1> in case the procedure was triggered by reception of a CELL UPDATE:
  - 2> if SRNS relocation was performed:
    - 3> transmit a CELL UPDATE CONFIRM message on the downlink DCCH.
  - 2> otherwise:
    - 3> update the START value for each CN domain as maintained in UTRAN (refer to subclause 8.5.9) with "START" in the IE "START list" for the CN domain as indicated by "CN domain identity" in the IE "START list":
    - 3> if this procedure was triggered while the UE was not in CELL\_DCH state, then for each CN domain as indicated by "CN domain identity" in the IE "START list":
      - 4> set the 20 MSB of the MAC-d HFN with the corresponding START value in the IE "START list";
      - 4> set the remaining LSB of the MAC-d HFN to zero.
    - 3> transmit a CELL UPDATE CONFIRM message on the downlink DCCH or optionally on the CCCH but only if ciphering is not required; and
    - 3> optionally include set the IE "RLC re-establish indicator (RB2, RB3 and RB4)" and/or the IE "RLC re-establish indicator (RB5 and upwards)" to TRUE to request a RLC re-establishment in the UE, in which case the corresponding RLC entities should also be re-established in UTRAN; or
- 1> in case the procedure was triggered by reception of a URA UPDATE:
  - 2> if SRNS relocation was performed:
    - 3> transmit a URA UPDATE CONFIRM message on the downlink DCCH.
  - 2> otherwise:
    - 3> transmit a URA UPDATE CONFIRM message on the downlink CCCH or DCCH.
  - 2> include the IE "URA identity" in the URA UPDATE CONFIRM message in a cell where multiple URA identifiers are broadcast; or
- 1> initiate an RRC connection release procedure (see subclause 8.1.4) by transmitting an RRC CONNECTION RELEASE message on the downlink CCCH. In particular UTRAN should:
  - 2> if the CELL UPDATE message was sent because of an unrecoverable error in RB2, RB3 or RB4:
    - 3> initiate an RRC connection release procedure (subclause 8.1.4) by transmitting an RRC CONNECTION RELEASE message on the downlink CCCH.

UTRAN may transmit several CELL UPDATE CONFIRM/URA UPDATE CONFIRM messages to increase the probability of proper reception of the message by the UE. In such a case, the RRC SN for these repeated messages should be the same.

# 8.3.1.6 Reception of the CELL UPDATE CONFIRM/URA UPDATE CONFIRM message by the UE

When the UE receives a CELL UPDATE CONFIRM/URA UPDATE CONFIRM message; and

- if the message is received on the CCCH, and IE "U-RNTI" is present and has the same value as the variable U\_RNTI; or
- if the message is received on DCCH:

#### the UE may:

1> maintain a list of the set of cells to which the UE has Radio Links if the IE "Cell ID" is present.

#### the UE shall:

- 1> stop timer T302;
- 1> in case of a cell update procedure and the CELL UPDATE CONFIRM message:
  - 2> includes "RB information elements"; and/or
  - 2> includes "Transport channel information elements"; and/or
  - 2> includes "Physical channel information elements"; and
  - 2> if the variable ORDERED\_RECONFIGURATION is set to FALSE:
    - 3> set the variable ORDERED\_RECONFIGURATION to TRUE.
- 1> act upon all received information elements as specified in subclause 8.6, unless specified otherwise in the following:
  - 2> if the IE "Frequency info" is included in the message:
    - 3> if the IE "RRC State Indicator" is set to the value "CELL\_FACH" or "CELL\_PCH" or URA\_PCH":
      - 4> select a suitable UTRA cell according to [4] on that frequency;
      - 4> act as specified in subclause 8.3.1.12.
    - 3> if the IE "RRC State Indicator" is set to the value "CELL\_DCH":
      - 4> act on the IE "Frequency info" as specified in subclause 8.6.6.1.
  - 2> use the transport channel(s) applicable for the physical channel types that is used; and
  - 2> if the IE "TFS" is neither included nor previously stored in the UE for that transport channel(s):
    - 3> use the TFS given in system information.
  - 2> if none of the TFS stored is compatible with the physical channel:
    - 3> delete the stored TFS;
    - 3> use the TFS given in system information.
  - 2> perform the physical layer synchronisation procedure as specified in [29];
  - 2> if the CELL UPDATE CONFIRM message includes the IE "RLC re-establish indicator (RB2, RB3 and RB4)" in the CELL UPDATE CONFIRM message and it is set to TRUE:
    - 3> re-establish the RLC entities for signalling radio bearer RB2, signalling radio bearer RB3 and signalling radio bearer RB4 (if established);
    - 3> if the value of the IE "Status" in the variable CIPHERING\_STATUS of the CN domain stored in the variable LATEST\_CONFIGURED\_CN\_DOMAIN is set to "Started":

- 4> set the HFN component of the respective COUNT-C values for AM RLC entities with RB identity 2,RB identity 3 and RB identity 4 (if established) equal to the START value included in the latest transmitted CELL UPDATE message for the CN domain stored in the variable LATEST\_CONFIGURED\_CN\_DOMAIN.
- 2> if the CELL UPDATE CONFIRM message includes the IE "RLC re-establish indicator (RB5 and upwards)" in the CELL UPDATE CONFIRM message and it is set to TRUE:
  - 3> for radio bearers with RB identity 5 and upwards:
    - 4> re-establish the AM RLC entities;
    - 4> if the value of the IE "Status" in the variable CIPHERING\_STATUS of the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED\_RABS is set to "Started":
      - 5> set the HFN component of the respective COUNT-C values for AM RLC entities equal to the START value included in this CELL UPDATE message for the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED\_RABS.
- 1> if the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message contained the IE "Ciphering mode info" or contained the IE "Integrity protection mode info":
  - 2> set the IE "Status" in the variable SECURITY\_MODIFICATION for all the CN domains in the variable SECURITY\_MODIFICATION to "Affected".
- 1> enter a state according to subclause 8.6.3.3 applied on the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message.

If the UE after state transition enters CELL\_DCH state, it shall:

1> not prohibit periodical status transmission in RLC.

If the UE after state transition remains in CELL\_FACH state, it shall

- 1> start the timer T305 using its initial value if timer T305 is not running and periodical cell update has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity";
- 1> select PRACH according to subclause 8.5.17;
- 1> select Secondary CCPCH according to subclause 8.5.19;
- 1> not prohibit periodical status transmission in RLC;
- 1> if the IE "UTRAN DRX cycle length coefficient" is included in the same message:
  - 2> ignore that IE and stop using DRX.

If the UE after state transition enters URA\_PCH or CELL\_PCH state, it shall:

- 1> prohibit periodical status transmission in RLC;
- 1> clear the variable C\_RNTI;
- 1> stop using that C\_RNTI just cleared from the variable C\_RNTI in MAC;
- 1> start the timer T305 using its initial value if timer T305 is not running and periodical update has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity";
- 1> select Secondary CCPCH according to subclause 8.5.19;
- 1> if the IE "UTRAN DRX cycle length coefficient" is included in the same message:
  - 2> use the value in the IE "UTRAN DRX Cycle length coefficient" for calculating Paging Occasion and PICH Monitoring Occasion as specified in subclause 8.6.3.2 in CELL\_PCH state.

- 1> if the IE "UTRAN DRX cycle length coefficient" is not included in the same message:
  - 2> set the variable INVALID\_CONFIGURATION to TRUE.
- If the UE after the state transition remains in CELL FACH state; and
  - 1> the contents of the variable C\_RNTI are empty:
- it shall check the value of V302; and:
  - 1> if V302 is equal to or smaller than N302:
    - 2> if, caused by the received CELL UPDATE CONFIRM or URA UPDATE CONFIRM message:
      - 3> the IE "Reconfiguration" in the variable CIPHERING\_STATUS is set to TRUE; and/or
      - 3> the IE "Reconfiguration" in the variable INTEGRITY\_PROTECTION\_INFO is set to TRUE:
        - 4> abort the ongoing integrity and/or ciphering reconfiguration;
        - 4> if the received CELL UPDATE CONFIRM or URA UPDATE CONFIRM message contained the IE "Ciphering mode info":
          - 5> set the IE "Reconfiguration" in the variable CIPHERING\_STATUS to FALSE; and
          - 5> clear the variable RB\_UPLINK\_CIPHERING\_ACTIVATION\_TIME\_INFO.
        - 4> if the received CELL UPDATE CONFIRM or URA UPDATE CONFIRM message contained the IE "Integrity protection mode info":
          - 5> set the IE "Reconfiguration" in the variable INTEGRITY\_PROTECTION\_INFO to FALSE; and
          - 5> clear the variable INTEGRITY\_PROTECTION\_ACTIVATION\_INFO.
    - 2> in case of a URA update procedure:
      - 3> stop the URA update procedure; and
      - 3> continue with a cell update procedure.
    - 2> set the contents of the CELL UPDATE message according to subclause 8.3.1.3, except for the IE "Cell update cause" which shall be set to "cell reselection";
    - 2> submit the CELL UPDATE message for transmission on the uplink CCCH;
    - 2> increment counter V302;
    - 2> restart timer T302 when the MAC layer indicates success or failure to transmit the message.
  - 1> if V302 is greater than N302:
    - 2> clear the variable RB\_UPLINK\_CIPHERING\_ACTIVATION\_TIME\_INFO;
    - 2> clear the variable INTEGRITY\_PROTECTION\_ACTIVATION\_INFO;
    - 2> in case of a cell update procedure:
      - 3> clear the entry for the CELL UPDATE CONFIRM message in the table "Rejected transactions" in the variable TRANSACTIONS.
    - 2> in case of a URA update procedure:
      - 3> clear the entry for the URA UPDATE CONFIRM message in the table "Rejected transactions" in the variable TRANSACTIONS.
    - 2> release all its radio resources;

- 2> indicate release (abort) of the established signalling connections (as stored in the variable ESTABLISHED\_SIGNALLING\_CONNECTIONS) and established radio access bearers (as stored in the variable ESTABLISHED\_RABS) to upper layers;
- 2> clear the variable ESTABLISHED\_SIGNALLING\_CONNECTIONS;
- 2> clear the variable ESTABLISHED\_RABS;
- 2> enter idle mode;
- 2> other actions the UE shall perform when entering idle mode from connected mode are specified in subclause 8.5.2:
- 2> and the procedure ends.

If the UE after the state transition remains in CELL\_FACH state; and

- a C-RNTI is stored in the variable C\_RNTI;

or

- the UE after the state transition moves to another state than the CELL\_FACH state:

#### the UE shall:

- 1> if the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message contained the IE "Ciphering mode info":
  - 2> include and set the IE "Radio bearer uplink ciphering activation time info" in any response message transmitted below to the value of the variable RB\_UPLINK\_CIPHERING\_ACTIVATION\_TIME\_INFO.
- 1> in case of a cell update procedure:
  - 2> set the IE "RRC transaction identifier" in any response message transmitted below to the value of "RRC transaction identifier" in the entry for the CELL UPDATE CONFIRM message in the table "Accepted transactions" in the variable TRANSACTIONS; and
  - 2> clear that entry.
- 1> in case of a URA update procedure:
  - 2> set the IE "RRC transaction identifier" in any response message transmitted below to the value of "RRC transaction identifier" in the entry for the URA UPDATE CONFIRM message in the table "Accepted transactions" in the variable TRANSACTIONS; and
  - 2> clear that entry;
- 1> if the variable PDCP\_SN\_INFO is non-empty:
  - 2> include the IE "RB with PDCP information list" in any response message transmitted below and set it to the value of the variable PDCP\_SN\_INFO.
- 1> if the received CELL UPDATE CONFIRM or URA UPDATE CONFIRM message included the IE "Downlink counter synchronisation info":
  - 2> re-establish RB2;
  - 2> set the new uplink and downlink HFN component of the COUNT-C of RB2 to MAX(uplink HFN component of the COUNT-C of RB2, downlink HFN component of the COUNT-C of RB2);
  - 2> increment by one the downlink and uplink values of the HFN component of the COUNT-C for RB2;
  - 2> calculate the START value according to subclause 8.5.9;
  - 2> include the calculated START values for each CN domain in the IE "START list" in the IE "Uplink counter synchronisation info" in any response message transmitted below.

- 1> transmit a response message as specified in subclause 8.3.1.7;
- 1> if the IE "Integrity protection mode info" was present in the CELL UPDATE CONFIRM or URA UPDATE CONFIRM message:
  - 2> start applying the new integrity protection configuration in the uplink for signalling radio bearer RB2 from and including the transmitted response message.
- 1> if the variable ORDERED\_RECONFIGURATION is set to TRUE caused by the received CELL UPDATE CONFIRM message in case of a cell update procedure:
  - 2> set the variable ORDERED RECONFIGURATION to FALSE.
- 1> clear the variable PDCP\_SN\_INFO;
- 1> when the response message transmitted per subclause 8.3.1.7 to the UTRAN has been confirmed by RLC:
  - 2> if the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message contained the IE "Ciphering mode info":
    - 3> resume data transmission on any suspended radio bearer and signalling radio bearer mapped on RLC-AM or RLC-UM;
    - 3> set the IE "Reconfiguration" in the variable CIPHERING\_STATUS to FALSE; and
    - 3> clear the variable RB\_UPLINK\_CIPHERING\_ACTIVATION\_TIME\_INFO.
  - 2> if the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message contained the IE "Integrity protection mode info":
    - 3> set "Uplink RRC Message sequence number" for signalling radio bearer RB0 in the variable INTEGRITY\_PROTECTION\_INFO to a value such that next RRC message to be sent on uplink RB0 will use the new integrity protection configuration;
    - 3> allow the transmission of RRC messages on all signalling radio bearers with any RRC SN;
    - 3> set the IE "Reconfiguration" in the variable INTEGRITY\_PROTECTION\_INFO to FALSE.
  - 2> clear the variable INTEGRITY\_PROTECTION\_ACTIVATION\_INFO.
- 1> in case of a cell update procedure:
  - 2> clear the entry for the CELL UPDATE CONFIRM message in the table "Rejected transactions" in the variable TRANSACTIONS.
- 1> in case of a URA update procedure:
  - 2> clear the entry for the URA UPDATE CONFIRM message in the table "Rejected transactions" in the variable TRANSACTIONS.
- 1> set the variable CELL\_UPDATE\_STARTED to FALSE;
- 1> clear the variable SECURITY\_MODIFICATION.

The procedure ends.

# 10.2.8 CELL UPDATE CONFIRM

This message confirms the cell update procedure and can be used to reallocate new RNTI information for the UE valid in the new cell.

RLC-SAP: UM

Logical channel: CCCH or DCCH

Direction: UTRAN→UE

Message Type MP			reference	Semantics description
			Message	
			Type	
UE Information Elements				
U-RNTI CV-	CCCH		U-RNTI	
			10.3.3.47	
RRC transaction identifier MP			RRC	
			transaction	
			identifier	
			10.3.3.36	
Integrity check info CH			Integrity	
			check info	
			10.3.3.16	
Integrity protection mode info OP			Integrity	
			protection	
			mode info	
Oigh aging good lists			10.3.3.19	
Ciphering mode info OP			Ciphering mode info	
			10.3.3.5	
Activation time MD			Activation	Default value is "now"
Activation time MD			time 10.3.3.1	Default value is now
New U-RNTI OP			U-RNTI	
New O-IXIVII			10.3.3.47	
New C-RNTI OP			C-RNTI	
New O-IXIVII			10.3.3.8	
New DSCH-RNTI OP			DSCH-RNTI	
Tion Been ruiti			10.3.3.9a	
RRC State Indicator MP			RRC State	
			Indicator	
			10.3.3.35a	
UTRAN DRX cycle length OP			UTRAN DRX	
coefficient			cycle length	
			coefficient	
			10.3.3.49	
RLC re-establish indicator (RB2, MP			RLC re-	
RB3 and RB4)			establish	
			indicator	
			10.3.3.35	
RLC re-establish indicator (RB5 MP			RLC re-	
and upwards)			establish	
			indicator	
01117			10.3.3.35	
CN Information Elements			ON	
CN Information info OP			CN	
			Information	
UTRAN Information Elements			info 10.3.1.3	
URA identity OP			URA identity	
OTA Identity OF			10.3.2.6	
RB information elements			10.0.2.0	
RB information to release list OP		1 to		
		<maxrb></maxrb>		
>RB information to release MP			RB	
			information	

Information Element/Group name	Need	Multi	Type and reference	Semantics description
			to release 10.3.4.19	
RB information to reconfigure list	OP	1 to	10.3.4.19	
>RB information to reconfigure	MP	<maxrb></maxrb>	RB	
g			information	
			to reconfigure 10.3.4.18	
RB information to be affected list	OP	1 to <maxrb></maxrb>		
>RB information to be affected	MP		RB information to be affected 10.3.4.17	
Downlink counter	OP			
synchronisation info >RB with PDCP information list	OP	1 to		This IE is needed for each RB
		<maxrball RABs&gt;</maxrball 		having PDCP in the case of lossless SRNS relocation
>>RB with PDCP information	MP		RB with PDCP	
			information 10.3.4.22	
TrCH Information Elements			10.0.4.22	
Uplink transport channels				
UL Transport channel	OP		UL Transport	
information common for all transport channels			channel information	
			common for	
			all transport	
			channels	
Deleted TrCH information list	OP	1 to	10.3.5.24	
Deleted TICH Information list	OP	<maxtrch< td=""><td></td><td></td></maxtrch<>		
>Deleted UL TrCH information	MP		Deleted UL	
			TrCH information	
			10.3.5.5	
Added or Reconfigured TrCH information list	OP	1 to <maxtrch< td=""><td></td><td></td></maxtrch<>		
>Added or Reconfigured UL	MP	>	Added or	
TrCH information			Reconfigure	
			d UL TrCH	
			information 10.3.5.2	
CHOICE mode	MP			
>FDD >>CPCH set ID	OP		CPCH set ID	
			10.3.5.3	
>>Added or Reconfigured TrCH information for DRAC list	OP	1 to <maxtrch< td=""><td></td><td></td></maxtrch<>		
>>>DRAC static information	MP		DRAC static	
			information 10.3.5.7	
>TDD				(no data)
DL Transport channel	OP		DL Transport	
information common for all	Or .		channel	
transport channels			information	
		1	common for	

Information Element/Group name	Need	Multi	Type and reference	Semantics description
			all transport channels 10.3.5.6	
Deleted TrCH information list	OP	1 to <maxtrch &gt;</maxtrch 		
>Deleted DL TrCH information	MP		Deleted DL TrCH information 10.3.5.4	
Added or Reconfigured TrCH information list	OP	1 to <maxtrch></maxtrch>		
>Added or Reconfigured DL TrCH information	MP		Added or Reconfigure d DL TrCH information 10.3.5.1	
PhyCH information elements				
Frequency info	MD		Frequency info 10.3.6.36	Default value is the existing value of frequency information
Uplink radio resources				
Maximum allowed UL TX power	MD		Maximum allowed UL TX power 10.3.6.39	Default value is the existing maximum UL TX power
CHOICE channel requirement	OP		101010100	
>Uplink DPCH info			Uplink DPCH info 10.3.6.88.	
>CPCH SET Info			CPCH SET Info 10.3.6.13	
Downlink radio resources				
CHOICE mode	MP			
>FDD >>Downlink PDSCH information	OP		Downlink PDSCH information 10.3.6.30	
>TDD				(no data)
Downlink information common for all radio links	OP		Downlink information common for all radio links 10.3.6.24	
Downlink information per radio link list	OP	1 to <maxrl></maxrl>		Send downlink information for each radio link to be set-up
>Downlink information for each radio link	MP		Downlink information for each radio link 10.3.6.27	

Condition	Explanation			
CCCH	This IE is mandatory present when CCCH is used and			
	ciphering is not required and not needed otherwise.			

### 3GPP TSG- RAN WG2 Meeting #31 Stockholm, Sweden, 19 - 23 August 2002

	(	CHANGE	REQ	UE	ST	-		CR-Form-v7
*	25.331 CR	1590	жrev	-	ж	Current version:	5.1.0	ж

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

Proposed chan	ge a	<b>ffects:</b> UICC apps業 ME <mark>X</mark> Radio Acc	ess Netwo	rk X Core Network
Title:	ж	Correction to RLC unrecoverable error occurs in Cl	ELL_DCH	state
Source:	$\mathfrak{H}$	TSG-RAN WG2		
Work item code	: X	TEI	Date: ₩	21/08/2002
			<b>-</b>	Dile
Category:	Ж		Release: #	
		Use <u>one</u> of the following categories:		the following releases:
		F (correction)	2	(GSM Phase 2)
		<ul> <li>A (corresponds to a correction in an earlier release)</li> <li>B (addition of feature),</li> </ul>	R96 R97	(Release 1996) (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)
			Rel-6	(Release 6)

Reason for change: # 1.According to current text, the UE shall treat both the cases of RL failure and RLC unrecoverable error on DCH state with the same way as specified in subclause 8.3.1.2. However, the RL failure and RLC unrecoverable error have some essential differences, e.g. the RLC unrecoverable error can possibly be recovered to initial condition by RLC re-establishment, but RL failure can not. The usage of T314/T315 for RLC unrecoverable error on dedicated channel is not proper because this may lead to some normal RABs (i.e. services or applications) to be released before the RLC is reestablished if the timers T314/T315 are shorter than the time period of performing RLC re-establishment. Besides, according to section 13.1, the timer T314 and T314 are designed for RL faiure case only. 2.For consistency, when release all radio bearers associated with T314/T315 that is set zero, the UE shall also indicate release of those radio access bearers to upper layers and delete all information about those radio access bearers from the variable ESTABLISHED RABS. 3.1. According to section 8.3.1.6, the UE shall handle both the IE "RLC reestablish indicator (RB2, RB3 and RB4)" and IE "RLC re-establish indicator (RB5 and upwards)" if received in the CELL UPDATE CONFIRM message. However, section 8.3.1.5 only states that the UTRAN should optionally include the IE "RLC re-establish indicator (RB5 and upwards)" in the CELL UPDATE CONFIRM message. This makes the IE "RLC re-establish indicator (RB2, RB3 and RB4)" become useless, and will prohibit the UTRAN to reestablish the RLC entities for SRB2, SRB3 and SRB4 (if established) even if the UTRAN would like to do this. 4.2. Both the IE "RLC re-establish indicator (RB2, RB3 and RB4)" and IE "RLC

re-establish indicator (RB5 and upwards)" are 'MP', and the UE shall reestablish the corresponding RLC entities only if any of these two IEs is set to TRUE. However, the text in 8.3.1.6 may be misunderstood to that the UE shall always re-establish the corresponding RLC entities if any of these two IEs is included even if the IE is set to FALSE. This will cause the UE always re-establishes all the RLC entities.

Summary of change: # 1.The timer T314/T315 only apply to Radio link failure.

- 2. Explicitly state the UE shall indicate release of those radio access bearers to upper layers and delete all information about those radio access bearers from the variable ESTABLISHED\_RABS when release all radio bearers associated with T314/T315 that is set zero.
- 3.1. Allow the UTRAN to include both IE "RLC re-establish indicator (RB2, RB3) and RB4)" and IE "RLC re-establish indicator (RB5 and upwards)" in the CELL UPDATE CONFIRM message.
- 4.2. Only if the received IE "RLC re-establish indicator (RB2, RB3 and RB4)" and/or IE "RLC re-establish indicator (RB5 and upwards)" is set to TRUE, the UE shall re-establish the corresponding RLC entities. And add notes into section 10.2.8 to state "Although this IE is not always required, need is MP to align with ASN.1".

#### Consequences if not approved:

- # 1. Some normal RABs (i.e. services or applications) will be released before the RLC is re-established if the timers T314/T315 are shorter than the time period of performing RLC re-establishment.
  - 2. The memory might be filled with obsolete information, and further, NAS can be potentially not know about the current establishment condition of the RABs. 31. The IE "RLC re-establish indicator (RB2, RB3 and RB4)" becomes useless, and the UTRAN will be prohibited to re-establish the RLC entities for SRB2, SRB3 and SRB4.
  - 41. The UE might re-establish all the RLC entities.

Clauses affected:	<b>8.3.1.2, 8.3.1.5, 8.3.1.6<del>, 10.2.8</del></b>	
Other specs	Y N  X Other core specifications X	
affected:	X Test specifications  X 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 <a href="http://www.3gpp.org/specs/CR.htm">http://www.3gpp.org/specs/CR.htm</a>. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked # contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

#### 8.3.1.2 Initiation

A UE shall initiate the cell update procedure in the following cases:

- 1> Uplink data transmission:
  - 2> if the UE is in URA\_PCH or CELL\_PCH state; and
  - 2> if the UE has uplink RLC data PDU or uplink RLC control PDU on RB1 or upwards to transmit:
    - 3> perform cell update using the cause "uplink data transmission".

#### 1> Paging response:

- 2> if the criteria for performing cell update with the cause specified above in the current subclause is not met; and
- 2> if the UE in URA\_PCH or CELL\_PCH state, receives a PAGING TYPE 1 message fulfilling the conditions for initiating a cell update procedure specified in subclause 8.1.2.3:
  - 3> perform cell update using the cause "paging response".

#### 1> Radio link failure:

- 2> if none of the criteria for performing cell update with the causes specified above in the current subclause is met; and
- 2> if the UE is in CELL\_DCH state; and
- 2> if the criteria for radio link failure is met as specified in subclause 8.5.6:
  - 3> perform cell update using the cause "radio link failure".

#### 1> Re-entering service area:

- 2> if none of the criteria for performing cell update with the causes specified above in the current subclause is met; and
- 2> if the UE is in CELL\_FACH or CELL\_PCH state; and
- 2> if the UE has been out of service area and re-enters service area before T307 or T317 expires:
  - 3> perform cell update using the cause "re-entering service area".

#### 1> RLC unrecoverable error:

- 2> if none of the criteria for performing cell update with the causes specified above in the current subclause is met: and
- 2> if the UE detects RLC unrecoverable error [16] in an AM RLC entity:
  - 3> perform cell update using the cause "RLC unrecoverable error".

#### 1> Cell reselection:

- 2> if none of the criteria for performing cell update with the causes specified above in the current subclause is met:
  - 3> if the UE is in CELL\_FACH or CELL\_PCH state and the UE performs cell re-selection; or
  - 3> if the UE is in CELL FACH state and the variable C RNTI is empty:
    - 4> perform cell update using the cause "cell reselection".

#### 1> Periodical cell update:

- 2> if none of the criteria for performing cell update with the causes specified above in the current subclause is met; and
- 2> if the UE is in CELL\_FACH or CELL\_PCH state; and
- 2> if the timer T305 expires; and
- 2> if the criteria for "in service area" as specified in subclause 8.5.5.2 is fulfilled; and
- 2> if periodic updating has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity":
  - 3> perform cell update using the cause "periodical cell update".

#### A UE in URA\_PCH state shall initiate the URA update procedure in the following cases:

- 1> URA reselection:
  - 2> if the UE detects that the current URA assigned to the UE, stored in the variable URA\_IDENTITY, is not present in the list of URA identities in system information block type 2; or
  - 2> if the list of URA identities in system information block type 2 is empty; or
  - 2> if the system information block type 2 can not be found:
    - 3> perform URA update using the cause "change of URA".
- 1> Periodic URA update:
  - 2> if the criteria for performing URA update with the causes as specified above in the current subclause are not met; and
  - 2> if the timer T305 expires while the UE is in the service area; and
  - 2> if periodic updating has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity":
    - 3> perform URA update using the cause "periodic URA update".

When initiating the URA update or cell update procedure, the UE shall:

- 1> stop timer T305;
- 1> if the UE is in CELL\_DCH state:
  - 2> in the variable RB TIMER INDICATOR, set the IE "T314 expired" and the IE "T315 expired" to FALSE;
  - 2> if the stored values of the timer T314 and timer T315 are both equal to zero; or
  - 2> if the stored value of the timer T314 is equal to zero and there are no radio bearers associated with any radio access bearers for which in the variable ESTABLISHED\_RABS the value of the IE "Re-establishment timer" is set to "useT315":
    - 3> release all its radio resources;
    - 3> indicate release (abort) of the established signalling connections (as stored in the variable ESTABLISHED\_SIGNALLING\_CONNECTIONS) and established radio access bearers (as stored in the variable ESTABLISHED\_RABS) to upper layers;
    - 3> clear the variable ESTABLISHED\_SIGNALLING\_CONNECTIONS;
    - 3> clear the variable ESTABLISHED\_RABS;
    - 3> enter idle mode;
    - 3> perform other actions when entering idle mode from connected mode as specified in subclause 8.5.2;
    - 3> and the procedure ends.

- 2> if the stored value of the timer T314 is equal to zero:
  - 3> release all radio bearers, associated with any radio access bearers for which in the variable ESTABLISHED\_RABS the value of the IE "Re-establishment timer" is set to "useT314";
  - 3> in the variable RB\_TIMER\_INDICATOR set the IE "T314 expired" to TRUE.
- 2> if the stored value of the timer T315 is equal to zero:
  - 3> release all radio bearers associated with any radio access bearers for which in the variable ESTABLISHED\_RABS the value of the IE "Re-establishment timer" is set to "useT315";
  - 3> in the variable RB\_TIMER\_INDICATOR set the IE "T315 expired" to TRUE.
- 2> if the stored value of the timer T314 is greater than zero:
  - 3> if there are radio bearers associated with any radio access bearers for which in the variable ESTABLISHED\_RABS the value of the IE "Re-establishment timer" is set to "useT314":
    - 4> start timer T314.
  - 3> if there are no radio bearers associated with any radio access bearers for which in the variable ESTABLISHED\_RABS the value of the IE "Re-establishment timer" is set to "useT314" or "useT315":
    - 4> start timer T314.
- 2> if the stored value of the timer T315 is greater than zero:
  - 3> if there are radio bearers associated with any radio access bearers for which in the variable ESTABLISHED\_RABS the value of the IE "Re-establishment timer" is set to "useT315":
    - 4> start timer T315.
- 2> for the released radio bearer(s):
  - 3> delete the information about the radio bearer from the variable ESTABLISHED\_RABS;
  - 3> when all radio bearers belonging to the same radio access bearer have been released:
    - 4> indicate local end release of the radio access bearer to upper layers using the CN domain identity together with the RAB identity stored in the variable ESTABLISHED\_RABS;
    - 4> delete all information about the radio access bearer from the variable ESTABLISHED\_RABS.
- 2> select a suitable UTRA cell according to [4];
- 2> set the variable ORDERED\_RECONFIGURATION to FALSE.
- 1> set the variables PROTOCOL\_ERROR\_INDICATOR, FAILURE\_INDICATOR, UNSUPPORTED\_CONFIGURATION and INVALID\_CONFIGURATION to FALSE;
- 1> set the variable CELL\_UPDATE\_STARTED to TRUE;
- 1> if the UE is not already in CELL\_FACH state:
  - 2> move to CELL\_FACH state;
  - 2> select PRACH according to subclause 8.5.17;
  - 2> select Secondary CCPCH according to subclause 8.5.19;
  - 2> use the transport format set given in system information as specified in subclause 8.6.5.1.
- 1> if the UE performs cell re-selection:
  - 2> clear the variable C RNTI; and
  - 2> stop using that C\_RNTI just cleared from the variable C\_RNTI in MAC.

- 1> set CFN in relation to SFN of current cell according to subclause 8.5.15;
- 1> in case of a cell update procedure:
  - 2> set the contents of the CELL UPDATE message according to subclause 8.3.1.3;
  - 2> submit the CELL UPDATE message for transmission on the uplink CCCH.
- 1> in case of a URA update procedure:
  - 2> set the contents of the URA UPDATE message according to subclause 8.3.1.3;
  - 2> submit the URA UPDATE message for transmission on the uplink CCCH.
- 1> set counter V302 to 1;
- 1> start timer T302 when the MAC layer indicates success or failure in transmitting the message.

#### 8.3.1.5 Reception of an CELL UPDATE/URA UPDATE message by the UTRAN

When the UTRAN receives a CELL UPDATE/URA UPDATE message, the UTRAN should:

- 1> in case the procedure was triggered by reception of a CELL UPDATE:
  - 2> if SRNS relocation was performed:
    - 3> transmit a CELL UPDATE CONFIRM message on the downlink DCCH.
  - 2> otherwise:
    - 3> update the START value for each CN domain as maintained in UTRAN (refer to subclause 8.5.9) with "START" in the IE "START list" for the CN domain as indicated by "CN domain identity" in the IE "START list":
    - 3> if this procedure was triggered while the UE was not in CELL\_DCH state, then for each CN domain as indicated by "CN domain identity" in the IE "START list":
      - 4> set the 20 MSB of the MAC-d HFN with the corresponding START value in the IE "START list";
      - 4> set the remaining LSB of the MAC-d HFN to zero.
    - 3> transmit a CELL UPDATE CONFIRM message on the downlink DCCH or optionally on the CCCH but only if ciphering is not required; and
    - 3> optionally include set the IE "RLC re-establish indicator (RB2, RB3 and RB4)" and/or the IE "RLC re-establish indicator (RB5 and upwards)" to TRUE to request a RLC re-establishment in the UE, in which case the corresponding RLC entities should also be re-established in UTRAN; or
- 1> in case the procedure was triggered by reception of a URA UPDATE:
  - 2> if SRNS relocation was performed:
    - 3> transmit a URA UPDATE CONFIRM message on the downlink DCCH.
  - 2> otherwise:
    - 3> transmit a URA UPDATE CONFIRM message on the downlink CCCH or DCCH.
  - 2> include the IE "URA identity" in the URA UPDATE CONFIRM message in a cell where multiple URA identifiers are broadcast; or
- 1> initiate an RRC connection release procedure (see subclause 8.1.4) by transmitting an RRC CONNECTION RELEASE message on the downlink CCCH. In particular UTRAN should:
  - 2> if the CELL UPDATE message was sent because of an unrecoverable error in RB2, RB3 or RB4:
    - 3> initiate an RRC connection release procedure (subclause 8.1.4) by transmitting an RRC CONNECTION RELEASE message on the downlink CCCH.

UTRAN may transmit several CELL UPDATE CONFIRM/URA UPDATE CONFIRM messages to increase the probability of proper reception of the message by the UE. In such a case, the RRC SN for these repeated messages should be the same.

# 8.3.1.6 Reception of the CELL UPDATE CONFIRM/URA UPDATE CONFIRM message by the UE

When the UE receives a CELL UPDATE CONFIRM/URA UPDATE CONFIRM message; and

- if the message is received on the CCCH, and IE "U-RNTI" is present and has the same value as the variable U\_RNTI; or
- if the message is received on DCCH:

#### the UE may:

1> maintain a list of the set of cells to which the UE has Radio Links if the IE "Cell ID" is present.

#### the UE shall:

- 1> stop timer T302;
- 1> in case of a cell update procedure and the CELL UPDATE CONFIRM message:
  - 2> includes "RB information elements"; and/or
  - 2> includes "Transport channel information elements"; and/or
  - 2> includes "Physical channel information elements"; and
  - 2> if the variable ORDERED\_RECONFIGURATION is set to FALSE:
    - 3> set the variable ORDERED\_RECONFIGURATION to TRUE.
- 1> act upon all received information elements as specified in subclause 8.6, unless specified otherwise in the following:
  - 2> if the IE "Frequency info" is included in the message:
    - 3> if the IE "RRC State Indicator" is set to the value "CELL\_FACH" or "CELL\_PCH" or URA\_PCH":
      - 4> select a suitable UTRA cell according to [4] on that frequency;
      - 4> act as specified in subclause 8.3.1.12.
    - 3> if the IE "RRC State Indicator" is set to the value "CELL\_DCH":
      - 4> act on the IE "Frequency info" as specified in subclause 8.6.6.1.
  - 2> use the transport channel(s) applicable for the physical channel types that is used; and
  - 2> if the IE "TFS" is neither included nor previously stored in the UE for that transport channel(s):
    - 3> use the TFS given in system information.
  - 2> if none of the TFS stored is compatible with the physical channel:
    - 3> delete the stored TFS;
    - 3> use the TFS given in system information.
  - 2> perform the physical layer synchronisation procedure as specified in [29];
  - 2> if the CELL UPDATE CONFIRM message includes the IE "RLC re-establish indicator (RB2, RB3 and RB4)" in the CELL UPDATE CONFIRM message and it is set to TRUE:
    - 3> re-establish the RLC entities for signalling radio bearer RB2, signalling radio bearer RB3 and signalling radio bearer RB4 (if established);
    - 3> if the value of the IE "Status" in the variable CIPHERING\_STATUS of the CN domain stored in the variable LATEST\_CONFIGURED\_CN\_DOMAIN is set to "Started":

- 4> set the HFN component of the respective COUNT-C values for AM RLC entities with RB identity 2,RB identity 3 and RB identity 4 (if established) equal to the START value included in the latest transmitted CELL UPDATE message for the CN domain stored in the variable LATEST\_CONFIGURED\_CN\_DOMAIN.
- 2> if the CELL UPDATE CONFIRM message includes the IE "RLC re-establish indicator (RB5 and upwards)" in the CELL UPDATE CONFIRM message and it is set to TRUE:
  - 3> for radio bearers with RB identity 5 and upwards:
    - 4> re-establish the AM RLC entities;
    - 4> if the value of the IE "Status" in the variable CIPHERING\_STATUS of the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED\_RABS is set to "Started":
      - 5> set the HFN component of the respective COUNT-C values for AM RLC entities equal to the START value included in this CELL UPDATE message for the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED\_RABS.
- 1> if the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message contained the IE "Ciphering mode info" or contained the IE "Integrity protection mode info":
  - 2> set the IE "Status" in the variable SECURITY\_MODIFICATION for all the CN domains in the variable SECURITY\_MODIFICATION to "Affected".
- 1> enter a state according to subclause 8.6.3.3 applied on the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message.

If the UE after state transition enters CELL\_DCH state, it shall:

1> not prohibit periodical status transmission in RLC.

If the UE after state transition remains in CELL\_FACH state, it shall

- 1> start the timer T305 using its initial value if timer T305 is not running and periodical cell update has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity";
- 1> select PRACH according to subclause 8.5.17;
- 1> select Secondary CCPCH according to subclause 8.5.19;
- 1> not prohibit periodical status transmission in RLC;
- 1> if the IE "UTRAN DRX cycle length coefficient" is included in the same message:
  - 2> ignore that IE and stop using DRX.

If the UE after state transition enters URA\_PCH or CELL\_PCH state, it shall:

- 1> prohibit periodical status transmission in RLC;
- 1> clear the variable C\_RNTI;
- 1> stop using that C\_RNTI just cleared from the variable C\_RNTI in MAC;
- 1> start the timer T305 using its initial value if timer T305 is not running and periodical update has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity";
- 1> select Secondary CCPCH according to subclause 8.5.19;
- 1> if the IE "UTRAN DRX cycle length coefficient" is included in the same message:
  - 2> use the value in the IE "UTRAN DRX Cycle length coefficient" for calculating Paging Occasion and PICH Monitoring Occasion as specified in subclause 8.6.3.2 in CELL\_PCH state.

- 1> if the IE "UTRAN DRX cycle length coefficient" is not included in the same message:
  - 2> set the variable INVALID\_CONFIGURATION to TRUE.
- If the UE after the state transition remains in CELL FACH state; and
  - 1> the contents of the variable C\_RNTI are empty:
- it shall check the value of V302; and:
  - 1> if V302 is equal to or smaller than N302:
    - 2> if, caused by the received CELL UPDATE CONFIRM or URA UPDATE CONFIRM message:
      - 3> the IE "Reconfiguration" in the variable CIPHERING\_STATUS is set to TRUE; and/or
      - 3> the IE "Reconfiguration" in the variable INTEGRITY\_PROTECTION\_INFO is set to TRUE:
        - 4> abort the ongoing integrity and/or ciphering reconfiguration;
        - 4> if the received CELL UPDATE CONFIRM or URA UPDATE CONFIRM message contained the IE "Ciphering mode info":
          - 5> set the IE "Reconfiguration" in the variable CIPHERING\_STATUS to FALSE; and
          - 5> clear the variable RB\_UPLINK\_CIPHERING\_ACTIVATION\_TIME\_INFO.
        - 4> if the received CELL UPDATE CONFIRM or URA UPDATE CONFIRM message contained the IE "Integrity protection mode info":
          - 5> set the IE "Reconfiguration" in the variable INTEGRITY\_PROTECTION\_INFO to FALSE; and
          - 5> clear the variable INTEGRITY\_PROTECTION\_ACTIVATION\_INFO.
    - 2> in case of a URA update procedure:
      - 3> stop the URA update procedure; and
      - 3> continue with a cell update procedure.
    - 2> set the contents of the CELL UPDATE message according to subclause 8.3.1.3, except for the IE "Cell update cause" which shall be set to "cell reselection";
    - 2> submit the CELL UPDATE message for transmission on the uplink CCCH;
    - 2> increment counter V302;
    - 2> restart timer T302 when the MAC layer indicates success or failure to transmit the message.
  - 1> if V302 is greater than N302:
    - 2> clear the variable RB\_UPLINK\_CIPHERING\_ACTIVATION\_TIME\_INFO;
    - 2> clear the variable INTEGRITY\_PROTECTION\_ACTIVATION\_INFO;
    - 2> in case of a cell update procedure:
      - 3> clear the entry for the CELL UPDATE CONFIRM message in the table "Rejected transactions" in the variable TRANSACTIONS.
    - 2> in case of a URA update procedure:
      - 3> clear the entry for the URA UPDATE CONFIRM message in the table "Rejected transactions" in the variable TRANSACTIONS.
    - 2> release all its radio resources;

- 2> indicate release (abort) of the established signalling connections (as stored in the variable ESTABLISHED\_SIGNALLING\_CONNECTIONS) and established radio access bearers (as stored in the variable ESTABLISHED\_RABS) to upper layers;
- 2> clear the variable ESTABLISHED\_SIGNALLING\_CONNECTIONS;
- 2> clear the variable ESTABLISHED\_RABS;
- 2> enter idle mode;
- 2> other actions the UE shall perform when entering idle mode from connected mode are specified in subclause 8.5.2:
- 2> and the procedure ends.

If the UE after the state transition remains in CELL\_FACH state; and

- a C-RNTI is stored in the variable C\_RNTI;

or

- the UE after the state transition moves to another state than the CELL\_FACH state:

#### the UE shall:

- 1> if the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message contained the IE "Ciphering mode info":
  - 2> include and set the IE "Radio bearer uplink ciphering activation time info" in any response message transmitted below to the value of the variable RB\_UPLINK\_CIPHERING\_ACTIVATION\_TIME\_INFO.
- 1> in case of a cell update procedure:
  - 2> set the IE "RRC transaction identifier" in any response message transmitted below to the value of "RRC transaction identifier" in the entry for the CELL UPDATE CONFIRM message in the table "Accepted transactions" in the variable TRANSACTIONS; and
  - 2> clear that entry.
- 1> in case of a URA update procedure:
  - 2> set the IE "RRC transaction identifier" in any response message transmitted below to the value of "RRC transaction identifier" in the entry for the URA UPDATE CONFIRM message in the table "Accepted transactions" in the variable TRANSACTIONS; and
  - 2> clear that entry;
- 1> if the variable PDCP\_SN\_INFO is non-empty:
  - 2> include the IE "RB with PDCP information list" in any response message transmitted below and set it to the value of the variable PDCP\_SN\_INFO.
- 1> if the received CELL UPDATE CONFIRM or URA UPDATE CONFIRM message included the IE "Downlink counter synchronisation info":
  - 2> re-establish RB2;
  - 2> set the new uplink and downlink HFN component of the COUNT-C of RB2 to MAX(uplink HFN component of the COUNT-C of RB2, downlink HFN component of the COUNT-C of RB2);
  - 2> increment by one the downlink and uplink values of the HFN component of the COUNT-C for RB2;
  - 2> calculate the START value according to subclause 8.5.9;
  - 2> include the calculated START values for each CN domain in the IE "START list" in the IE "Uplink counter synchronisation info" in any response message transmitted below.

- 1> transmit a response message as specified in subclause 8.3.1.7;
- 1> if the IE "Integrity protection mode info" was present in the CELL UPDATE CONFIRM or URA UPDATE CONFIRM message:
  - 2> start applying the new integrity protection configuration in the uplink for signalling radio bearer RB2 from and including the transmitted response message.
- 1> if the variable ORDERED\_RECONFIGURATION is set to TRUE caused by the received CELL UPDATE CONFIRM message in case of a cell update procedure:
  - 2> set the variable ORDERED RECONFIGURATION to FALSE.
- 1> clear the variable PDCP\_SN\_INFO;
- 1> when the response message transmitted per subclause 8.3.1.7 to the UTRAN has been confirmed by RLC:
  - 2> if the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message contained the IE "Ciphering mode info":
    - 3> resume data transmission on any suspended radio bearer and signalling radio bearer mapped on RLC-AM or RLC-UM;
    - 3> set the IE "Reconfiguration" in the variable CIPHERING\_STATUS to FALSE; and
    - 3> clear the variable RB\_UPLINK\_CIPHERING\_ACTIVATION\_TIME\_INFO.
  - 2> if the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message contained the IE "Integrity protection mode info":
    - 3> set "Uplink RRC Message sequence number" for signalling radio bearer RB0 in the variable INTEGRITY\_PROTECTION\_INFO to a value such that next RRC message to be sent on uplink RB0 will use the new integrity protection configuration;
    - 3> allow the transmission of RRC messages on all signalling radio bearers with any RRC SN;
    - 3> set the IE "Reconfiguration" in the variable INTEGRITY\_PROTECTION\_INFO to FALSE.
  - 2> clear the variable INTEGRITY\_PROTECTION\_ACTIVATION\_INFO.
- 1> in case of a cell update procedure:
  - 2> clear the entry for the CELL UPDATE CONFIRM message in the table "Rejected transactions" in the variable TRANSACTIONS.
- 1> in case of a URA update procedure:
  - 2> clear the entry for the URA UPDATE CONFIRM message in the table "Rejected transactions" in the variable TRANSACTIONS.
- 1> set the variable CELL\_UPDATE\_STARTED to FALSE;
- 1> clear the variable SECURITY\_MODIFICATION.

The procedure ends.

# 10.2.8 CELL UPDATE CONFIRM

This message confirms the cell update procedure and can be used to reallocate new RNTI information for the UE valid in the new cell.

RLC-SAP: UM

Logical channel: CCCH or DCCH

Direction: UTRAN→UE

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
Message Type	MP		Message		
			Type		
UE Information Elements					
U-RNTI	CV-CCCH		U-RNTI		
			10.3.3.47		
RRC transaction identifier	MP		RRC		
			transaction		
			identifier		
lata avita alba alciata	CLI		10.3.3.36		
Integrity check info	CH		Integrity check info		
			10.3.3.16		
Integrity protection mode info	OP		Integrity		
integrity protection mode into	Oi		protection		
			mode info		
			10.3.3.19		
Ciphering mode info	OP		Ciphering		
Olphering mode into	OI .		mode info		
			10.3.3.5		
Activation time	MD		Activation	Default value is	
, tour auton units	2		time 10.3.3.1	"now"	
New U-RNTI	OP		U-RNTI		
			10.3.3.47		
New C-RNTI	OP		C-RNTI		
			10.3.3.8		
New DSCH-RNTI	OP		DSCH-RNTI		
			10.3.3.9a		
New H-RNTI	OP		H-RNTI		REL-5
			10.3.3.14a		
RRC State Indicator	MP		RRC State		
			Indicator		
			10.3.3.10		
UTRAN DRX cycle length	OP		UTRAN DRX		
coefficient			cycle length		
			coefficient		
			10.3.3.49		
RLC re-establish indicator (RB2,	MP		RLC re-		
RB3 and RB4)			establish		
			indicator		
DIO LELE E L'ODE			10.3.3.35		
RLC re-establish indicator (RB5	MP		RLC re-		
and upwards)			establish		
			indicator		
CN Information Elements			10.3.3.35		
CN Information Elements  CN Information info	OP		CN		
ON INIOTHALION INIO	OF .		Information		
			info 10.3.1.3		
UTRAN Information Elements			1110 10.3.1.3		
URA identity	OP		URA identity		
O. G. Cladificty			10.3.2.6		
RB information elements			10.0.2.0		
RB information to release list	OP	1 to			
		<maxrb></maxrb>			

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
>RB information to release	MP		RB		
			information		
			to release 10.3.4.19		
RB information to reconfigure list	OP	1 to	10.3.4.19		
TO Illionnation to reconligure list		<maxrb></maxrb>			
>RB information to reconfigure	MP	11100711127	RB		
			information		
			to		
			reconfigure		
RB information to be affected list	OP	1 to	10.3.4.18		
RB information to be affected list	OF	<maxrb></maxrb>			
>RB information to be affected	MP	< TIGATED >	RB		
			information		
			to be		
			affected		
D	0.0		10.3.4.17		
Downlink counter synchronisation info	OP				
>RB with PDCP information list	OP	1 to			
>NB Will'I BOT I'llottilation list		<maxrball< td=""><td></td><td></td><td></td></maxrball<>			
		RABs>			
>>RB with PDCP information	MP		RB with	This IE is needed	
			PDCP	for each RB	
			information	having PDCP in	
			10.3.4.22	the case of lossless SRNS	
				relocation	
	OP			Telocation	REL-5
>>PDCP context relocation info	OP		PDCP	This IE is needed	REL-5
			context	for each RB	
			relocation	having PDCP and	
			info	performing PDCP	
Troll Information Floresute			10.3.4.1a	context relocation	
TrCH Information Elements Uplink transport channels					
UL Transport channel	OP		UL Transport		
information common for all			channel		
transport channels			information		
			common for		
			all transport		
			channels		
5 1 1 1 7 6 11 1 1 1 1 1 1 1 1 1 1 1 1 1	0.0		10.3.5.24		
Deleted TrCH information list	OP	1 to <maxtrch< td=""><td></td><td></td><td></td></maxtrch<>			
		>			
>Deleted UL TrCH information	MP		Deleted UL		
			TrCH		
			information		
Added as D. C. LT OLL	OB	14.6	10.3.5.5		
Added or Reconfigured TrCH information list	OP	1 to <maxtrch< td=""><td></td><td></td><td></td></maxtrch<>			
i inomiauon list		<maxirch &gt;</maxirch 			
>Added or Reconfigured UL	MP		Added or		
TrCH information			Reconfigure		
			d UL TrCH		
			information		
0110105	MB		10.3.5.2		1
CHOICE mode >FDD	MP				
>>CPCH set ID	OP		CPCH set ID		
			10.3.5.3		
>>Added or Reconfigured TrCH	OP	1 to	11111010		
information for DRAC list	1	<maxtrch< td=""><td>1</td><td>l</td><td>ĺ</td></maxtrch<>	1	l	ĺ

Information Element/Group name	name refero		Type and reference	Semantics description	Version
>>>DRAC static information	MP	>	DRAC static information 10.3.5.7		
>TDD				(no data)	
Downlink transport channels					
DL Transport channel information common for all transport channels	OP		DL Transport channel information common for all transport channels 10.3.5.6		
Deleted TrCH information list	OP	1 to <maxtrch &gt;</maxtrch 			
>Deleted DL TrCH information	MP		Deleted DL TrCH information 10.3.5.4		
Added or Reconfigured TrCH information list	OP	1 to <maxtrch &gt;</maxtrch 			
>Added or Reconfigured DL TrCH information	MP		Added or Reconfigure d DL TrCH information 10.3.5.1		
PhyCH information elements					
Frequency info	MD		Frequency info 10.3.6.36	Default value is the existing value of frequency information	
Uplink radio resources  Maximum allowed UL TX power	MD		Maximum allowed UL TX power 10.3.6.39	Default value is the existing maximum UL TX power	
CHOICE channel requirement	OP				
>Uplink DPCH info			Uplink DPCH info 10.3.6.88.		
>CPCH SET Info			CPCH SET Info 10.3.6.13		
Downlink radio resources	MD	1			
CHOICE mode >FDD	MP	+	-		
>>Downlink PDSCH information	OP		Downlink PDSCH information 10.3.6.30		
>TDD				(no data)	
Downlink HS-PDSCH Information	OP		Downlink HS_PDSCH Information 10.3.6.23a		REL-5
Downlink information common for all radio links	OP		Downlink information common for all radio links 10.3.6.24		
Downlink information per radio link list	OP	1 to <maxrl></maxrl>		Send downlink information for each radio link to	

Information Element/Group	Need	Multi	Type and	Semantics	Version
name			reference	description	
				be set-up	
>Downlink information for each	MP		Downlink		
radio link			information		
			for each		
			radio link		
			10.3.6.27		

Condition	Explanation				
CCCH	This IE is mandatory present when CCCH is used and				
	ciphering is not required and not needed otherwise.				

#### 3GPP TSG-RAN WG2 Meeting #31 Arlanda, Sweden, 19<sup>th</sup> – 23<sup>rd</sup> August 2002

Proposed change affects: UICC apps#

Tdoc # R2-022271

ME X Radio Access Network X Core Network

		(	CHANGE	REQ	UE	ST				CR-Form-v7
Ж	25.331	CR	1591	жrev	-	¥	Current version:	3.11.	0	¥

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the \$\mathbb{K}\$ symbols.

Title:	¥	Use of scrambling change when activating C MEASUREMENT CONTROL	M patt	ern using SF	-/2 by	
Source:	$\mathfrak{R}$	TSG-RAN WG2				
Work item code	: X	TEI		Date: ℜ	12/08/2002	
Category:	$\mathfrak{R}$	F	ŀ	Release: #	R99	
		Use one of the following categories:		Use <u>one</u> of t	he following releases	; <i>:</i>
		F (correction)			(GSM Phase 2)	
		A (corresponds to a correction in an earlier re	elease)	R96	(Release 1996)	
		<b>B</b> (addition of feature),		R97 (	(Release 1997)	
		C (functional modification of feature)		R98	(Release 1998)	
		<b>D</b> (editorial modification)		R99 (	(Release 1999)	
		Detailed explanations of the above categories can		Rel-4	(Release 4)	
		be found in 3GPP <u>TR 21.900</u> .		Rel-5	(Release 5)	
1				Pol 6	(Pologgo 6)	

#### Reason for change: # The changes included in this CR are proposed for the following reasons:

#### Need for IE "Scrambling code change"

UTRAN may apply a reconfiguration message to configure a compressed mode pattern. The pattern may later be activated either by means of another reconfiguration message or by means of a measurement control message. In case the CM pattern applies the SF/2 method, UTRAN will have to specify whether or not to change to the alternative scrambling code. Whether or not to use the alternative scrambling code can only be indicated in the reconfiguration messages but not in the MEASUREMENT CONTROL message. In case the CM pattern is configured by means of a reconfiguration message but activated by means of a MEASUREMENT CONTROL message, UTRAN should decide whether or not to apply the alternative scrambling code already when configuring the CM pattern, that is when applying the reconfiguration procedure. For this case, UTRAN should also have the possibility to change to the alternative scrambling code. This means that the IE "Scrambling code change" should be included in the reconfiguration message also for the case a CM pattern using SF/2 is configured but not activated.

#### Impact analysis:

<u>Impacted functionality</u>: Activation of compressed mode using SF/2 by means of a MEASUREMENT CONTROL message

Correction type: Correction of a function where the specification is incomplete. CR is expected to affect implementations since the CR involves a change in the handling of an IE in certain cases, although some implementations could already

have implemented the change introduced in this CR **Interoperability:** Isolated impact: the impact is isolated; only the corrected functionality is affected CR implemented only by UTRAN: Activation of compressed mode using SF/2 by means of a MEASUREMENT CONTROL message will not work CR implemented only by the UE: Only UTRANs that apply activation of compressed mode using SF/2 by means of a MEASUREMENT CONTROL message should implement this CR. There is no impact on other UTRANs since this CR has isolated impact Summary of change: ₩ The changes included in this CR are proposed for the following reasons: 10.3.6.21 Downlink DPCH info for each RL The condition used for the need of IE "Scrambling code change" has been changed from "when a CM pattern using SF/2 is activated" into "when a CM patter using SF/2 is configured" 10.3.6.22 Downlink DPCH info for each RL Post The same condition applies as in the previous case. Since it was missing, it has been added Consequences if The UE behaviour upon activation of a compressed mode pattern using method not approved: SF/2 by means of a MEASUREMENT CONTROL message is not specified

Clauses affected:	<b>3 1 1 1 1 1 1 1 1 1 1</b>	
	YN	
Other specs	第 Other core specifications	<b>x</b>
affected:	Test specifications	
	O&M Specifications	
Other comments:	$\mathbf{x}$	

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

Comprehensive information and tips about how to create CRs can be found at <a href="http://www.3gpp.org/specs/CR.htm">http://www.3gpp.org/specs/CR.htm</a>. Below is a brief summary:

- 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 <a href="ftp://ftp.3gpp.org/specs/">ftp://ftp.3gpp.org/specs/</a> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

## 10.3.6.21 Downlink DPCH info for each RL

Information Element/Group name	Need	Multi	Type and reference	Semantics description
CHOICE mode	MP			
>FDD				
>>Primary CPICH usage for channel estimation	MP		Primary CPICH usage for channel estimation 10.3.6.62	
>>DPCH frame offset	MP		Integer(038 144 by step of 256)	Offset (in number of chips) between the beginning of the P-CCPCH frame and the beginning of the DPCH frame This is called $\tau_{DPCH,n}$ in [26]
>>Secondary CPICH info	OP		Secondary CPICH info 10.3.6.73	
>>DL channelisation code	MP	1 to <maxdpc H-DLchan&gt;</maxdpc 		For the purpose of physical channel mapping [27] the DPCHs are numbered, starting from DPCH number 1, according to the order that they are contained in this IE.
>>>Secondary scrambling code	MD		Secondary scrambling code 10.3.6.74	Default is the same scrambling code as for the Primary CPICH
>>>Spreading factor	MP		Integer(4, 8, 16, 32, 64, 128, 256, 512)	Defined in CHOICE SF512- AndCodenumber with "code number" in ASN.1
>>>Code number	MP		Integer(0Sp reading factor - 1)	
>>>Scrambling code change	CH-SF/2		Enumerated (code change, no code change)	Indicates whether the alternative scrambling code is used for compressed mode method 'SF/2'.
>>TPC combination index	MP		TPC combination index 10.3.6.85	
>>SSDT Cell Identity	OP		SSDT Cell Identity 10.3.6.76	
>>Closed loop timing adjustment mode	CH- TxDiversity Mode		Integer(1, 2)	It is present if Tx Diversity is used in the radio link.
>TDD	0.0	4 00		B. I
>>DL CCTrCh List	OP	1 <maxcc TrCH&gt;</maxcc 		DL physical channels to establish or reconfigure list.
>>>TFCS ID	MD		Integer(18)	Identity of this CCTrCh. Default value is 1
>>>Time info	MP		Time Info 10.3.6.83	
>>>Common timeslot info	MD		Common Timeslot Info 10.3.6.10	Default is the current Common timeslot info
>>>Downlink DPCH timeslots and codes	MD		Downlink Timeslots and Codes 10.3.6.32	Default is to use the old timeslots and codes.
>>>UL CCTrCH TPC List	MD	0 <maxcc< td=""><td></td><td>UL CCTrCH identities for TPC</td></maxcc<>		UL CCTrCH identities for TPC

Information Element/Group name	Need	Multi	Type and reference	Semantics description
		TrCH>		commands associated with this DL CCTrCH. Default is previous list or all defined UL CCTrCHs
>>>>UL TPC TFCS Identity	MP		Transport Format Combination Set Identity 10.3.5.21	
>>DL CCTrCH List to Remove	OP	1 <maxcc TrCH&gt;</maxcc 		DL physical channels to remove list.
>>>TFCS ID	MP		Integer(18)	

Condition	Explanation
SF/2	The information element is mandatory present if the
	UE has an active compressed mode pattern
	sequence configured in variable TGPS_IDENTITY or
	included in the message including IE "Downlink
	DPCH info for each RL", which is using compressed
	mode method "SF/2". Otherwise the IE is not needed.
TxDiversity Mode	This IE is mandatory present if any TX Diversity Mode
	is used on the radio link, i.e. if STTD, "closed loop
	mode 1" or "closed loop mode 2" is used on the radio
	link. Otherwise the IE is not needed.

# 10.3.6.22 Downlink DPCH info for each RL Post

Information Element/Group	Need	Multi	Type and	Semantics description
name			reference	
CHOICE mode	MP			
>FDD				
>>Primary CPICH usage for channel estimation	MP		Primary CPICH usage for channel estimation 10.3.6.62	
>>Secondary scrambling code	MD		Secondary scrambling code 10.3.6.74	Default is the same scrambling code as for the Primary CPICH
>>CHOICE Spreading factor	MP		Integer(4, 8, 16, 32, 64, 128, 256, 512)	Defined in CHOICE SF512- AndCodenumber with "code number" in ASN.1
>>Code number	MP		Integer(0 Spreading factor - 1)	
>>Scrambling code change	CH-SF/2		Enumerated (code change, no code change)	Indicates whether the alternative scrambling code is used for compressed mode method 'SF/2'.
>>>TPC combination index	MP		TPC combination index 10.3.6.85	
>TDD				
>>Downlink DPCH timeslots and codes	MP		Downlink Timeslots and Codes 10.3.6.32	

<u>Condition</u>	<u>Explanation</u>
<u>SF/2</u>	The information element is mandatory present if the
	UE has a compressed mode pattern sequence
	configured in variable TGPS_IDENTITY or included in
	the message including IE "Downlink DPCH info for
	each RL Post", which is using compressed mode
	method "SF/2". Otherwise the IE is not needed.

### 3GPP TSG-RAN WG2 Meeting #31 Arlanda, Sweden, 19<sup>th</sup> – 23<sup>rd</sup> August 2002

Proposed change affects: UICC apps#

Tdoc # R2-022272

ME X Radio Access Network X Core Network

	CHAN	IGE REQU	JEST			CR-Form-v7
*	25.331 CR 1592	# rev	<b>-</b> #	Current version:	4.5.0	ж

For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the **x** symbols.

•	_	· · · <u>—</u> —				
Title:	¥	Use of scrambling change when activating MEASUREMENT CONTROL	CM patte	ern using S	F/2 by	
Source:	¥	TSG-RAN WG2				
Work item code	:#	TEI		Date: ♯	12/08/2002	
Category:	**	A Use one of the following categories: F (correction) A (corresponds to a correction in an earlier B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories cabe found in 3GPP TR 21.900.	release)	2 R96 R97 R98 R99 Rel-4	REL-4 the following releases: (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5)	<i>:</i>

### Reason for change: # The changes included in this CR are proposed for the following reasons:

### Need for IE "Scrambling code change"

UTRAN may apply a reconfiguration message to configure a compressed mode pattern. The pattern may later be activated either by means of another reconfiguration message or by means of a measurement control message. In case the CM pattern applies the SF/2 method, UTRAN will have to specify whether or not to change to the alternative scrambling code. Whether or not to use the alternative scrambling code can only be indicated in the reconfiguration messages but not in the MEASUREMENT CONTROL message. In case the CM pattern is configured by means of a reconfiguration message but activated by means of a MEASUREMENT CONTROL message, UTRAN should decide whether or not to apply the alternative scrambling code already when configuring the CM pattern, that is when applying the reconfiguration procedure. For this case, UTRAN should also have the possibility to change to the alternative scrambling code. This means that the IE "Scrambling code change" should be included in the reconfiguration message also for the case a CM pattern using SF/2 is configured but not activated.

#### Summary of change: # The changes included in this CR are proposed for the following reasons:

### 10.3.6.21 Downlink DPCH info for each RL

The condition used for the need of IE "Scrambling code change" has been changed from "when a CM pattern using SF/2 is <u>activated</u>" into "when a CM patter using SF/2 is <u>configured</u>"

	10.3.6.22 Downlink DPCH info for each RL Post The same condition applies as in the previous case. Since it was missing, it has been added
Consequences if not approved:	The UE behaviour upon activation of a compressed mode pattern using method SF/2 by means of a MEASUREMENT CONTROL message is not specified
Clauses affected:	<b>%</b> 10.3.6.21, 10.3.6.22
Clauses allecteu.	Y N
Other specs affected:	# Other core specifications # Test specifications O&M Specifications
Other comments:	**

### How to create CRs using this form:

- 1) Fill out the above form. The symbols above marked \$\mathbb{X}\$ 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 <a href="ftp://ftp.3gpp.org/specs/">ftp://ftp.3gpp.org/specs/</a> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

# 10.3.6.21 Downlink DPCH info for each RL

Information Element/Group name	Need	Multi	Type and reference	Semantics description
CHOICE mode	MP			
>FDD				
>>Primary CPICH usage for channel estimation	MP		Primary CPICH usage for channel estimation 10.3.6.62	
>>DPCH frame offset	MP		Integer(038 144 by step of 256)	Offset (in number of chips) between the beginning of the P-CCPCH frame and the beginning of the DPCH frame This is called $\tau_{DPCH,n}$ in [26]
>>Secondary CPICH info	OP		Secondary CPICH info 10.3.6.73	
>>DL channelisation code	MP	1 to <maxdpc H-DLchan&gt;</maxdpc 		For the purpose of physical channel mapping [27] the DPCHs are numbered, starting from DPCH number 1, according to the order that they are contained in this IE.
>>>Secondary scrambling code	MD		Secondary scrambling code 10.3.6.74	Default is the same scrambling code as for the Primary CPICH
>>>Spreading factor	MP		Integer(4, 8, 16, 32, 64, 128, 256, 512)	Defined in CHOICE SF512- AndCodenumber with "code number" in ASN.1
>>>Code number	MP		Integer(0Sp reading factor - 1)	
>>>Scrambling code change	CH-SF/2		Enumerated (code change, no code change)	Indicates whether the alternative scrambling code is used for compressed mode method 'SF/2'.
>>TPC combination index	MP		TPC combination index 10.3.6.85	
>>SSDT Cell Identity	OP		SSDT Cell Identity 10.3.6.76	
>>Closed loop timing adjustment mode	CH- TxDiversity Mode		Integer(1, 2)	It is present if Tx Diversity is used in the radio link.
>TDD	0.0	4 00		B. I
>>DL CCTrCh List	OP	1 <maxcc TrCH&gt;</maxcc 		DL physical channels to establish or reconfigure list.
>>>TFCS ID	MD		Integer(18)	Identity of this CCTrCh. Default value is 1
>>>Time info	MP		Time Info 10.3.6.83	
>>>Common timeslot info	MD		Common Timeslot Info 10.3.6.10	Default is the current Common timeslot info
>>>Downlink DPCH timeslots and codes	MD		Downlink Timeslots and Codes 10.3.6.32	Default is to use the old timeslots and codes.
>>>UL CCTrCH TPC List	MD	0 <maxcc< td=""><td></td><td>UL CCTrCH identities for TPC</td></maxcc<>		UL CCTrCH identities for TPC

Information Element/Group name	Need	Multi	Type and reference	Semantics description
		TrCH>		commands associated with this DL CCTrCH. Default is previous list or all defined UL CCTrCHs
>>>>UL TPC TFCS Identity	MP		Transport Format Combination Set Identity 10.3.5.21	
>>DL CCTrCH List to Remove	OP	1 <maxcc TrCH&gt;</maxcc 		DL physical channels to remove list.
>>>TFCS ID	MP		Integer(18)	

Condition	Explanation
SF/2	The information element is mandatory present if the
	UE has an active compressed mode pattern
	sequence configured in variable TGPS_IDENTITY or
	included in the message including IE "Downlink
	DPCH info for each RL", which is using compressed
	mode method "SF/2". Otherwise the IE is not needed.
TxDiversity Mode	This IE is mandatory present if any TX Diversity Mode
	is used on the radio link, i.e. if STTD, "closed loop
	mode 1" or "closed loop mode 2" is used on the radio
	link. Otherwise the IE is not needed.

# 10.3.6.22 Downlink DPCH info for each RL Post

Information Element/Group	Need	Multi	Type and	Semantics description
name			reference	
CHOICE mode	MP			
>FDD				
>>Primary CPICH usage for channel estimation	MP		Primary CPICH usage for channel estimation 10.3.6.62	
>>Secondary scrambling code	MD		Secondary scrambling code 10.3.6.74	Default is the same scrambling code as for the Primary CPICH
>>CHOICE Spreading factor	MP		Integer(4, 8, 16, 32, 64, 128, 256, 512)	Defined in CHOICE SF512- AndCodenumber with "code number" in ASN.1
>>Code number	MP		Integer(0 Spreading factor - 1)	
>>Scrambling code change	CH-SF/2		Enumerated (code change, no code change)	Indicates whether the alternative scrambling code is used for compressed mode method 'SF/2'.
>>>TPC combination index	MP		TPC combination index 10.3.6.85	
>TDD				
>>Downlink DPCH timeslots and codes	MP		Downlink Timeslots and Codes 10.3.6.32	

<u>Condition</u>	<u>Explanation</u>
<u>SF/2</u>	The information element is mandatory present if the
	UE has a compressed mode pattern sequence
	configured in variable TGPS_IDENTITY or included in
	the message including IE "Downlink DPCH info for
	each RL Post", which is using compressed mode
	method "SF/2". Otherwise the IE is not needed.

 $\mathfrak{R}$ 

### 3GPP TSG-RAN WG2 Meeting #31 Arlanda, Sweden, 19<sup>th</sup> – 23<sup>rd</sup> August 2002

Tdoc # R2-022273

5.1.0

	(	CHANG	E REQ	UE	ST	-		CR-Form-v7
25.331	CR	1593	<b>≋rev</b>	_	ж	Current version:	5.1.0	ж

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

ME X Radio Access Network X Core Network Proposed change affects: UICC apps# Title: Use of scrambling change when activating CM pattern using SF/2 by MEASUREMENT CONTROL TSG-RAN WG2 Source: Date: 第 12/08/2002 Work item code: ₩ TEI Category: Release: ₩ REL-5 Use one of the following categories: Use one of the following releases: F (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)

#### The changes included in this CR are proposed for the following reasons: Reason for change: #

### Need for IE "Scrambling code change"

UTRAN may apply a reconfiguration message to configure a compressed mode pattern. The pattern may later be activated either by means of another reconfiguration message or by means of a measurement control message. In case the CM pattern applies the SF/2 method, UTRAN will have to specify whether or not to change to the alternative scrambling code. Whether or not to use the alternative scrambling code can only be indicated in the reconfiguration messages but not in the MEASUREMENT CONTROL message. In case the CM pattern is configured by means of a reconfiguration message but activated by means of a MEASUREMENT CONTROL message, UTRAN should decide whether or not to apply the alternative scrambling code already when configuring the CM pattern, that is when applying the reconfiguration procedure. For this case, UTRAN should also have the possibility to change to the alternative scrambling code. This means that the IE "Scrambling code change" should be included in the reconfiguration message also for the case a CM pattern using SF/2 is configured but not activated.

Rel-6

(Release 6)

#### The changes included in this CR are proposed for the following reasons: Summary of change: ₩

### 10.3.6.21 Downlink DPCH info for each RL

The condition used for the need of IE "Scrambling code change" has been changed from "when a CM pattern using SF/2 is activated" into "when a CM patter using SF/2 is configured"

	10.3.6.22 Downlink DPCH info for each RL Post The same condition applies as in the previous case. Since it was missing, it has been added
Consequences if not approved:	The UE behaviour upon activation of a compressed mode pattern using method SF/2 by means of a MEASUREMENT CONTROL message is not specified
Clauses affected:	<b>%</b> 10.3.6.21, 10.3.6.22
Clauses allecteu.	Y N
Other specs affected:	# Other core specifications # Test specifications O&M Specifications
Other comments:	**

### How to create CRs using this form:

- 1) Fill out the above form. The symbols above marked \$\mathbb{X}\$ 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 <a href="ftp://ftp.3gpp.org/specs/">ftp://ftp.3gpp.org/specs/</a> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

# 10.3.6.21 Downlink DPCH info for each RL

Information Element/Group name	Need	Multi	Type and reference	Semantics description
CHOICE mode	MP			
>FDD				
>>Primary CPICH usage for channel estimation	MP		Primary CPICH usage for channel estimation 10.3.6.62	
>>DPCH frame offset	MP		Integer(038 144 by step of 256)	Offset (in number of chips) between the beginning of the P-CCPCH frame and the beginning of the DPCH frame This is called $\tau_{DPCH,n}$ in [26]
>>Secondary CPICH info	OP		Secondary CPICH info 10.3.6.73	
>>DL channelisation code	MP	1 to <maxdpc H-DLchan&gt;</maxdpc 		For the purpose of physical channel mapping [27] the DPCHs are numbered, starting from DPCH number 1, according to the order that they are contained in this IE.
>>>Secondary scrambling code	MD		Secondary scrambling code 10.3.6.74	Default is the same scrambling code as for the Primary CPICH
>>>Spreading factor	MP		Integer(4, 8, 16, 32, 64, 128, 256, 512)	Defined in CHOICE SF512- AndCodenumber with "code number" in ASN.1
>>>Code number	MP		Integer(0Sp reading factor - 1)	
>>>Scrambling code change	CH-SF/2		Enumerated (code change, no code change)	Indicates whether the alternative scrambling code is used for compressed mode method 'SF/2'.
>>TPC combination index	MP		TPC combination index 10.3.6.85	
>>SSDT Cell Identity	OP		SSDT Cell Identity 10.3.6.76	
>>Closed loop timing adjustment mode	CH- TxDiversity Mode		Integer(1, 2)	It is present if Tx Diversity is used in the radio link.
>TDD	0.0	4 00		B. I
>>DL CCTrCh List	OP	1 <maxcc TrCH&gt;</maxcc 		DL physical channels to establish or reconfigure list.
>>>TFCS ID	MD		Integer(18)	Identity of this CCTrCh. Default value is 1
>>>Time info	MP		Time Info 10.3.6.83	
>>>Common timeslot info	MD		Common Timeslot Info 10.3.6.10	Default is the current Common timeslot info
>>>Downlink DPCH timeslots and codes	MD		Downlink Timeslots and Codes 10.3.6.32	Default is to use the old timeslots and codes.
>>>UL CCTrCH TPC List	MD	0 <maxcc< td=""><td></td><td>UL CCTrCH identities for TPC</td></maxcc<>		UL CCTrCH identities for TPC

Information Element/Group name	Need	Multi	Type and reference	Semantics description
		TrCH>		commands associated with this DL CCTrCH. Default is previous list or all defined UL CCTrCHs
>>>>UL TPC TFCS Identity	MP		Transport Format Combination Set Identity 10.3.5.21	
>>DL CCTrCH List to Remove	OP	1 <maxcc TrCH&gt;</maxcc 		DL physical channels to remove list.
>>>TFCS ID	MP		Integer(18)	

Condition	Explanation
SF/2	The information element is mandatory present if the
	UE has an active compressed mode pattern
	sequence configured in variable TGPS_IDENTITY or
	included in the message including IE "Downlink
	DPCH info for each RL", which is using compressed
	mode method "SF/2". Otherwise the IE is not needed.
TxDiversity Mode	This IE is mandatory present if any TX Diversity Mode
	is used on the radio link, i.e. if STTD, "closed loop
	mode 1" or "closed loop mode 2" is used on the radio
	link. Otherwise the IE is not needed.

# 10.3.6.22 Downlink DPCH info for each RL Post

Information Element/Group	Need	Multi	Type and	Semantics description		
name			reference			
CHOICE mode	MP					
>FDD						
>>Primary CPICH usage for channel estimation	MP		Primary CPICH usage for channel estimation 10.3.6.62			
>>Secondary scrambling code	MD		Secondary scrambling code 10.3.6.74	Default is the same scrambling code as for the Primary CPICH		
>>CHOICE Spreading factor	MP		Integer(4, 8, 16, 32, 64, 128, 256, 512)	Defined in CHOICE SF512- AndCodenumber with "code number" in ASN.1		
>>Code number	MP		Integer(0 Spreading factor - 1)			
>>Scrambling code change	CH-SF/2		Enumerated (code change, no code change)	Indicates whether the alternative scrambling code is used for compressed mode method 'SF/2'.		
>>>TPC combination index	MP		TPC combination index 10.3.6.85			
>TDD						
>>Downlink DPCH timeslots and codes	MP		Downlink Timeslots and Codes 10.3.6.32			

<u>Condition</u>	<u>Explanation</u>
<u>SF/2</u>	The information element is mandatory present if the
	UE has a compressed mode pattern sequence
	configured in variable TGPS_IDENTITY or included in
	the message including IE "Downlink DPCH info for
	each RL Post", which is using compressed mode
	method "SF/2". Otherwise the IE is not needed.

# 3GPP TSG-RAN WG2 Meeting #31 Arlanda, Sweden, 19<sup>th</sup> – 23<sup>rd</sup> August 2002

# Tdoc # R2-022274

	CHANGE REQUEST	CR-Form-v7
*	25.331 CR 1594 # rev - # Current v	/ersion: <b>3.11.0 #</b>
For <u>HELP</u> on us	sing this form, see bottom of this page or look at the pop-up	text over the % symbols.
Proposed change a	affects: UICC apps器 ME X Radio Access Net	work Core Network
Title: 第	Actions when optional IE "Maximum allowed UL TX power"	is missing
Source: #	TSG-RAN WG2	
Work item code: ₩	TEI Date	: # <mark>2002-08-08</mark>
Category: Ж	F Release	:
Calegory.	Use one of the following categories:  F (correction)  A (corresponds to a correction in an earlier release)  B (addition of feature),  C (functional modification of feature)  P (editorial modification)  Petailed explanations of the above categories can be found in 3GPP TR 21.900.	e of the following releases: (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) 4 (Release 4) 5 (Release 5)
	Rel-	6 (Release 6)
Reason for change	: 第 Unclear behaviour when using the IE "Maximum allov	ved UL TX power
Summary of change	In CR 1390 the behaivor was clarified that,  - when the IE "Maximum allowed UL TX power"  Handover to UTRAN command, to use the rece  - or in case the IE is not received in any dedicate previously stored value.  Though in CR 1390, SIB 4 was forgotten. This is now a	eived value, ed message, use a
	Isolated impact analysis: It is assumed that the clarifica assumptions. However, if a UE has another interpretat occur:	
	<ul> <li>If the CR is not implemented in UE: Risk that the case the IE "Maximum allowed UL TX power" is</li> </ul>	
	- If the CR is not implemented in UTRAN: Does	not affect UTRAN.
	Impact on T1: No impact.	
Consequences if not approved:	# Unclear behaviour when using the IE "Maximum allow	ed UL TX power"
Clauses affected:	₩ 8.6.6.8	
	YN	
Other specs affected:	X Other core specifications X Test specifications	

	X O&M Specifications	
Other comments:	*	

2

### How to create CRs using this form:

- 1) Fill out the above form. The symbols above marked \$\mathbb{X}\$ 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 <a href="ftp://ftp.3gpp.org/specs/">ftp://ftp.3gpp.org/specs/</a> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
  - 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

### 8.6.6.8 Maximum allowed UL TX power

If the IE "Maximum allowed UL TX power" is included in the Handover to UTRAN Command, in any other dedicated message or in System Information Block 3 or in System Information Block 4, the UE shall:

1> store and use the value until it is updated;

If the IE "Maximum allowed UL TX power" was not included in any dedicated message the UE shall:

1> use the value previously stored, when received in an earlier dedicated message, Handover to UTRAN Command message or received in System Information Block 3 or in System Information Block 4;

For all cases, the UE shall:

- 1> keep the UE uplink transmit power below the indicated power value;
- 1> if the current UE uplink transmit power is above the indicated power value:
  - 2> decrease the power to a level below the power value.

The maximum UE transmitter power is defined as the lower of the maximum output power of the UE power class and the maximum allowed UL TX power indicated in this IE. The maximum UE transmitter power shall not be exceeded.

# 3GPP TSG-RAN WG2 Meeting #31 Arlanda, Sweden, 19<sup>th</sup> – 23<sup>rd</sup> August 2002

# *Tdoc* **#***R2-022275*

	CHANGE REQUEST	CR-Form-v7
*	25.331 CR 1595 # rev - #	Current version: 4.5.0 **
For <u>HELP</u> on us	sing this form, see bottom of this page or look at the	e pop-up text over the % symbols.
Proposed change a	affects: UICC apps器 ME X Radio Ad	ccess Network Core Network
Title: 第	Actions when optional IE "Maximum allowed UL T	X power" is missing
Source: #	TSG-RAN WG2	
Work item code: 第	TEI	<i>Date:</i> ♯ 2002-08-08
	Use one of the following categories:  F (correction)  A (corresponds to a correction in an earlier release  B (addition of feature),  C (functional modification of feature)  D (editorial modification)  Detailed explanations of the above categories can be found in 3GPP TR 21.900.	Release: # Rel-4  Use one of the following releases: 2 (GSM Phase 2) e) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)
Reason for change	: 第 Unclear behaviour when using the IE "Maxin	num allowed UL TX power
	e: # In CR 1390 the behaivor was clarified that, - when the IE "Maximum allowed UL TX Handover to UTRAN command, to use - or in case the IE is not received in any previously stored value.  Though in CR 1390, SIB 4 was forgotten. This	X power" is received in SIB 3 or e the received value, y dedicated message, use a
	Isolated impact analysis: It is assumed that the assumptions. However, if a UE has another in occur:	
	<ul> <li>If the CR is not implemented in UE: R case the IE "Maximum allowed UL TX</li> </ul>	
	- If the CR is not implemented in UTRA	N: Does not affect UTRAN.
	Impact on T1: No impact.	
Consequences if not approved:	₩ Unclear behaviour when using the IE "Maxim	num allowed UL TX power"
Clauses affected:	<b>₩</b> 8.6.6.8	
	YN	
Other specs affected:	<ul><li>X Other core specifications</li><li>X Test specifications</li></ul>	

### How to create CRs using this form:

 $\mathfrak{R}$ 

Other comments:

- 1) Fill out the above form. The symbols above marked \$\mathbb{X}\$ 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 <a href="ftp://ftp.3gpp.org/specs/">ftp://ftp.3gpp.org/specs/</a> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
  - 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

### 8.6.6.8 Maximum allowed UL TX power

If the IE "Maximum allowed UL TX power" is included in the Handover to UTRAN Command, in any other dedicated message or in System Information Block 3 or in System Information Block 4, the UE shall:

1> store and use the value until it is updated;

If the IE "Maximum allowed UL TX power" was not included in any dedicated message the UE shall:

1> use the value previously stored, when received in an earlier dedicated message, Handover to UTRAN Command message or received in System Information Block 3 or in System Information Block 4;

For all cases, the UE shall:

- 1> keep the UE uplink transmit power below the indicated power value;
- 1> if the current UE uplink transmit power is above the indicated power value:
  - 2> decrease the power to a level below the power value.

The maximum UE transmitter power is defined as the lower of the maximum output power of the UE power class and the maximum allowed UL TX power indicated in this IE. The maximum UE transmitter power shall not be exceeded.

# 3GPP TSG-RAN WG2 Meeting #31 Arlanda, Sweden, 19<sup>th</sup> – 23<sup>rd</sup> August 2002

# Tdoc #R2-022276

	<u> </u>												CR-Form-v7
				(	CHAN	IGE	REQ	UE	ST				
*	٦	ΓS 2	5.331	CR	1596	:	жrev	-	Ħ	Current ve	rsion:	5.1.0	¥
For <u>H</u>	IELP or	n using	this fo	rm, see	bottom	of this	page or	look	at the	e pop-up te	xt ove	r the ₩ sy	mbols.
Propose	ed chang	je affe	cts:	UICC a	pps# <mark> </mark>		ME X	Rad	dio Ad	ccess Netw	ork	Core N	etwork
Title:		₩ Ad	ctions w	hen op	tional IE	"Maxii	mum all	owed	UL T	X power" i	s miss	ing	
Source:		ж т	SG-RAI	N WG2									
Work ite	em code:	ж т	ΞI							Date:	¥ 20	02-08-08	
Categor	y:	Det	F (cor A (cor B (add C (fur D (edd ailed ex	rection) rrespond dition of actional i itorial me	owing cate  ds to a co feature), modification odification s of the TR 21.900	rrection on of fe n) above o	in an ea		elease	2	of the 1 (GS (Rei (Rei (Rei (Rei (Rei	el-5 ollowing re M Phase 2 lease 1996 lease 1998 lease 1999 lease 4) lease 5)	) ) )
Reason	for chan	ge: ♯	Unc	lear bel	naviour v	vhen u	sing the	IE "I	Maxir	num allowe	ed UL	TX power	
Summar	ry of cha	nge: #	-	where Hand or in prev	n the IE dover to case the iously st	"Maxim UTRAI e IE is l ored va	num allo N comm not rece alue.	wed I and, ived i	JL TX to us in any	X power" is e the recei y dedicated s is now ad	ved va I mess	llue, age, use	a
				nptions :	. Howev	er, if a	UE has	anot	her ii	e clarificati nterpretatio	n the	following r	may
			-							isk that the (power" is			unclear in
			-	If the	CR is n	ot imp	lemente	d in L	JTRA	N: Does no	ot affe	ct UTRAN	
			Impa	act on T	1: No im	npact.							
Consequence not appr		f H	Unc	lear bel	naviour v	vhen u	sing the	IE "N	1axim	num allowe	d UL 1	X power"	
Clauses	affected	<b>1:</b> #	8.6.6	5.8									
3.000			YN	1									
Other sp		я		-	core specifica		tions	ж					

X	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 <a href="http://www.3gpp.org/specs/CR.htm">http://www.3gpp.org/specs/CR.htm</a>. Below is a brief summary:

1) Fill out the above form. The symbols above marked \$\mathbb{X}\$ contain pop-up help information about the field that they are closest to.

2

- 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 <a href="ftp://ftp.3gpp.org/specs/">ftp://ftp.3gpp.org/specs/</a> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
  - 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

### 8.6.6.8 Maximum allowed UL TX power

If the IE "Maximum allowed UL TX power" is included in the Handover to UTRAN Command, in any other dedicated message or in System Information Block 3 or in System Information Block 4, the UE shall:

1> store and use the value until it is updated;

If the IE "Maximum allowed UL TX power" was not included in any dedicated message the UE shall:

1> use the value previously stored, when received in an earlier dedicated message, Handover to UTRAN Command message or received in System Information Block 3 or in System Information Block 4;

For all cases, the UE shall:

- 1> keep the UE uplink transmit power below the indicated power value;
- 1> if the current UE uplink transmit power is above the indicated power value:
  - 2> decrease the power to a level below the power value.

The maximum UE transmitter power is defined as the lower of the maximum output power of the UE power class and the maximum allowed UL TX power indicated in this IE. The maximum UE transmitter power shall not be exceeded.

ME X Radio Access Network X Core Network

### 3GPP TSG-RAN2 Meeting #31 Arlanda, Sweden, 19<sup>th</sup> – 23<sup>rd</sup> August 2002

Proposed change affects: UICC apps#

	(	CHANGE	REQ	UE	ST	CR-Form	-v7
*	25.331 CR	1600	жrev	-	¥	Current version: 3.11.0 **	

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

Title:	Ж	Clarification on the IE "Frequency In	fo"		
Source:	$\mathfrak{R}$	TSG-RAN WG2			
Work item code	:#	TEI		Date: ♯	09-08-2002
Category:	$\mathfrak{R}$	F	ı	Release: ₩	R99
		Use one of the following categories:		Use <u>one</u> of	the following releases:
		<b>F</b> (correction)		2	(GSM Phase 2)
		A (corresponds to a correction in an	earlier release)	R96	(Release 1996)
		<b>B</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	ories can	Rel-4	(Release 4)
		be found in 3GPP <u>TR 21.900</u> .		Rel-5	(Release 5)
				Pol 6	(Polosco 6)

Reason for change: # In section 10.3.6.36 "Frequency Info", the semantic description of the IE "UARFCN uplink(Nu)" specifies that if this IE is absent then the UE shall use the duplex sepration of 190 MHz. But this is true only for UMTS 2100 (i.e. frequency band a) since for UMTS 1900 (i.e. frequency band b) the duplex separation is 80 MHz

Summary of change: ₩

The CR clarifies the semantic description of the IE "UARFCN uplink(Nu)" that in case this IE is not present then the default duplex separation of the operating frequency band should be used.

### Impact analysis:

Impacted functionality: Rx/Tx frequency duplex separation

Clarification of a function where the specification is ambigous. Does not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

This CR impacts only UE or UTRAN supporting 1900 MHz frequency band. If UTRAN (supporting 1900 MHz frequency band) does not implement the CR, it will be necessary to send the UL frequency in addition to the DL frequency which will lead to a waste of 14 bits over the radio. If the UE (supporting 1900 MHz frequency band) is not implementing the CR but UTRAN does then there is an ambiguity on the Rx/Tx frequency separation.

Consequences if not approved:

# This CR affects only UTRAN or UE supporting 1900 MHz frequency band. For UTRAN and UE with this capability if this CR is not approved a potential ambiguity regarding the UL frequency definition remains in the specification. To

avoid this ambiguity UTRAN is forced to send explicitly the UL frequncy which may lead to a waste of 14 bits over the radio.

Clauses affected:	第 10.3	3.6.36		
Other specs affected:	¥ N	Other core specifications Test specifications O&M Specifications	ж	
Other comments:	<b></b>			

### How to create CRs using this form:

- 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 <a href="ftp://ftp.3gpp.org/specs/">ftp://ftp.3gpp.org/specs/</a> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

# 10.3.6.36 Frequency info

Information Element/Group	Need	Multi	Type and	Semantics description
name			reference	
CHOICE mode	MP			
>FDD				
>>UARFCN uplink (Nu)	OP		Integer(016 383)	[21] If IE not present, default duplex distance of 190 MHz shall be used. If this IE is not present, the default duplex distance defined for the operating frequency band shall be used [21]
>>UARFCN downlink (Nd)	MP		Integer(0 16383)	[21]
>TDD				
>>UARFCN (Nt)	MP		Integer(0 16383)	[22]

# 3GPP TSG-RAN2 Meeting #31 Arlanda, Sweden, 19<sup>th</sup> – 23<sup>rd</sup> August 2002

	CHANGE	REQUEST	(	CK-Form-v7
<b>*</b> 25	5.331 CR 1601	<b>≭rev</b> - <sup>≭</sup> Cu	rrent version: 4.5.0	ж
For <b>HELP</b> on using	this form, see bottom of this	page or look at the po	pp-up text over the # sym	ibols.
Proposed change affect	cts: UICC apps#	ME X Radio Acces	ss Network X Core Net	twork
Title: # Cla	arification on the IE "Frequen	ncy Info"		
Source: # TS	G-RAN WG2			
Work item code: ₩ TE	EI .		Date:	
Deta		: Unin an earlier release) eature) categories can uency Info", the sema		
Summary of change: ₩	"UARFCN uplink(Nu)" spe duplex sepration of 190 M band a) since for UMTS 19 MHz.  The CR clarifies the sema	Hz. But this is true onl 900 (i.e. frequency bar	y for UMTS 2100 (i.e. free and b) the duplex separation	quency on is 80
	case this IE is not present frequency band should be	used.	x separation of the opera	iting
Consequences if # not approved:	The specification remains	ambigous		
Clauses affected: 第	10.3.6.36			
Other specs # affected:	Y N Other core specifications Test specifications O&M Specifications	tions #		
Other comments: #				

### How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <a href="http://www.3gpp.org/specs/CR.htm">http://www.3gpp.org/specs/CR.htm</a>. 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 <a href="ftp://ftp.3gpp.org/specs/">ftp://ftp.3gpp.org/specs/</a> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

# 10.3.6.36 Frequency info

Information Element/Group	Need	Multi	Type and reference	Semantics description
name			reference	
CHOICE mode	MP			
>FDD				
>>UARFCN uplink (Nu)	OP		Integer(016 383)	If this IE is not present, the default duplex distance defined for the operating frequency band shall be used [21]  If IE not present, default duplex distance of 190 MHz shall be used.
>>UARFCN downlink (Nd)	MP		Integer(0 16383)	[21]
>TDD				
>>UARFCN (Nt)	MP		Integer(0 16383)	[22]

# 3GPP TSG-RAN2 Meeting #31 Arlanda, Sweden, 19<sup>th</sup> – 23<sup>rd</sup> August 2002

			СН	ANGE	REQ	UE	ST					CR-Form-v7
*	25.	.331	CR 16	02	жrev	-	ж	Current vers	sion:	5.1	.0	¥
For <u><b>HELP</b></u> on using this form, see bottom of this page or look at the pop-up text over the <b>%</b> symbols.												
Proposed change	affec	ts: l	UICC apps	<b>#</b>	MEX	Rad	io Ad	ccess Netwo	rk X	Core	e Ne	twork
Title:	Cla	rificati	on on the I	E "Freque	ncy Info"							
Source: #	TS	G-RAN	NWG2									
Work item code: ₩	TEI							Date: ♯	09-	08-20	02	
Category:	Deta	F (cor. A (cor. B (add C (fun. D (edi iled ex	the following rection) responds to dition of feat ctional modific planations of 3GPP TR 2	a correctio ure), ification of f cation) f the above	n in an eai eature)		lease	Release: # Use <u>one</u> of 2 e) R96 R97 R98 R99 Rel-4 Rel-5 Rel-6	the fo (GSM (Rele (Rele (Rele (Rele (Rele	_	e 2) 996) 997) 998) 999)	ases:
Reason for change		"UAF duple band MHz The case	RFCN uplinex sepration of the septration of the	n of 190 M or UMTS 19 Hz for UMT s the semanot presen	ecifies that MHz. But t 900 (i.e. f TS 1800 ( antic desc t then the	at if the his is reque (i.e. frontion	is IE true ency eque	emantic descris absent the only for UM band II) the cency band III) the left is the IE "UARFuplex separa	en the TS 21 duples	UE s 00 (i.e s sepa	hall e. fre tration	use the equency on is 80
Consequences if not approved:	ж	·	specification			ıs						
Clauses affected:	ж	10.3	.6.36									
Other specs affected:	*	YN	Test spec	e specifica cifications ecifications		¥						
Other comments:	¥											

### How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <a href="http://www.3gpp.org/specs/CR.htm">http://www.3gpp.org/specs/CR.htm</a>. 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 <a href="ftp://ftp.3gpp.org/specs/">ftp://ftp.3gpp.org/specs/</a> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

# 10.3.6.36 Frequency info

Information Element/Group name	Need	Multi	Type and reference	Semantics description
CHOICE mode	MP			
>FDD				
>>UARFCN uplink (Nu)	OP		Integer(016 383)	[21] If this IE is not present, the default duplex distance defined for the operating frequency band shall be used [21]not present, default duplex distance of 190 MHz shall be used.
>>UARFCN downlink (Nd)	MP		Integer(0 16383)	[21]
>TDD				
>>UARFCN (Nt)	MP		Integer(0 16383)	[22]