TSG-RAN Meeting #15 Jeju-do, Korea, 5 - 8 March 2002

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

Source: TSG-RAN WG2

Agenda item: 7.2.3

Doc-1st-	Status-	Spec	CR	Rev	Phase	Subject	Cat	Version	Versio
R2-020500	agreed	25.331	1318	1	R99	Treatment of optional elements in RB control messages		3.9.0	3.10.0
R2-020501	agreed	25.331	1319		Rel-4	Treatment of optional elements in RB control messages		4.3.0	4.4.0
R2-020344	agreed	25.331	1322		R99	Procedure Performance for TDD UL physical Channel Control		3.9.0	3.10.0
R2-020502	agreed	25.331	1323		Rel-4	Procedure Performance for TDD UL physical Channel Control	А	4.3.0	4.4.0
R2-020565	agreed	25.331	1332	2	R99	OTDOA Assistance Data	F	3.9.0	3.10.0
R2-020566	agreed	25.331	1333		Rel-4	OTDOA Assistance Data	Α	4.3.0	4.4.0
R2-020568	agreed	25.331	1336	2	R99	Retransmission of uplink direct transfer at RLC re-establishment and inter-RAT change		3.9.0	3.10.0
R2-020569	agreed	25.331	1337		Rel-4	Retransmission of uplink direct transfer at RLC re-establishment and inter-RAT change	A	4.3.0	4.4.0
R2-020511	agreed	25.331	1338	1	R99	Correction to IE "UL interference" for UTRA TDD	F	3.9.0	3.10.0
R2-020512	agreed	25.331	1339		Rel-4	Correction to IE "UL interference" for UTRA TDD	Α	4.3.0	4.4.0
R2-020513	agreed	25.331	1346	1	R99	Correction to UE Id for DSCH	F	3.9.0	3.10.0
R2-020570	agreed	25.331	1347		Rel-4	Correction to UE Id for DSCH	Α	4.3.0	4.4.0
R2-020515	agreed	25.331	1348	3	R99	Corrections to support combined Cell/URA update and SRNS relocation	F	3.9.0	3.10.0
R2-020438	agreed	25.331	1349		Rel-4	Corrections to support combined Cell/URA update and SRNS relocation	Α	4.3.0	4.4.0
R2-020516	agreed	25.331	1350	1	R99	Number of UTRAN and Inter-RAT frequencies	F	3.9.0	3.10.0
R2-020517	agreed	25.331	1351		Rel-4	Number of UTRAN and Inter-RAT frequencies	Α	4.3.0	4.4.0
R2-020519	agreed	25.331	1352	1	R99	Abortion of signalling connection establishment	F	3.9.0	3.10.0
R2-020520	agreed	25.331	1353		Rel-4	Abortion of signalling connection establishment	Α	4.3.0	4.4.0
R2-020523	agreed	25.331	1357	1	R99	Modification of GPS timing representation to avoid large integers	F	3.9.0	3.10.0
R2-020524	agreed	25.331	1358		Rel-4	Modification of GPS timing representation to avoid large integers	Α	4.3.0	4.4.0

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For <u>HELP</u> or	For HELP on using this form, see bottom of this page or look at the pop-up text over the % symbols.											nbols.
Proposed chang	je a	affects: ♯	(U)	SIM	ME/UE	X	Radi	o Ac	cess Networl	k X	Core Ne	etwork
				' <u></u>								
Title:	\mathfrak{R}	Treatmen	t of op	tional ele	ments in	RB c	ontrol	mes	sages			
Source:	\mathfrak{R}	TSG-RAN	WG2	<u>.</u>								
Work item code:	\mathfrak{R}	TEI							Date: ₩	18	FEB 2002	2
Category:	\mathfrak{R}	F							Release: ₩	R9	9	
		Use <u>one</u> of	the follo	owing cate	gories:				Use <u>one</u> of			
		F (cor	,						2	(GSN	1 Phase 2)	
		A (cor	respon	ds to a cor	rection in	an ea	rlier re	lease	e) R96		ease 1996)	
		B (add	dition o	f feature),					R97	(Rele	ase 1997)	
				modification		ıre)			R98	(Rele	ase 1998)	
				odification					R99	•	ase 1999)	
		Detailed exp				egorie	s can		REL-4	(Rele	ease 4)	
		be found in	3GPP	TR 21.900					REL-5	(Rele	ease 5)	

- Reason for change: # 1. When receiving Radio Control Reconfiguration messages certain IEs, being optional, may not be included by the UTRAN. If the presence of a IE is used to configure a certain feature, then the behaviour of the UE if this IE is absent is not clear - whether the UE is to stop using the configuration corresponding to the previously received values or continue to use the previously received values.
 - 2. The IE "Secondary CPICH Info" is optional in the IE "Downlink DPCH Info" for each RL. If the UTRAN includes this IE in one configuration message the UE will start using the secondary CPICH. If the URTRAN then does not include it in a subsequent reconfiguration message, it is not clear if the UE is meant to continue to use the previously received configuration or not. If the UE is required to continue to use the previously received configuration then it is not possible for the UTRAN to disable Secondary CPICH operation. It is required for the UTRAN to have the ability to turn off the use of the Secondary CPICH.
 - 3. The IE "CPCH Set ID" is OP. It is not clear what the UE is to do in case this is not included in a subsequent message.
 - 4. The IE "Header Compression Information" is optional. If a subsequent message does not include it the UE action is not clear. Without clear actions it will not be possible to stop header compressikon in case of relocation for e.g.

Summary of change: ₩

- 1. It is clarified that the UE shall not use any previously stored configuration for the IE "Polling Info".
- 2. It is clarified that the UE shall stop acting on the IE "secondary CPICH Info" is not included in a subsequent message.
- 3. It is clarified that the UE shall stop using the PCPCH assigned to it if the IE "CPCH Set ID" is not included in a subsequent message and start using the last PRACH configured on the UL.
- 4. It is clarfied that the UE shall not use any stored header compression information if absent in a subsequent message.

Isolated Impact Analysis Corrected Functionality: Radio Bearer Control

Correction to a function where the specification was:

• ambiguous or not sufficiently explicit.

Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

The corrected functionality is Radio Control Reconfiguration, Secondary CPICH usage in the UE.

- If the network implements the change but not the UE, the UE might
 incorrectly not apply the right configuration in case of a UE implementation
 that decides to not use a previous configuration. In addition the UE would
 incorrectly continue to use the Secondary CPICH.
- If the UE implements the change but not the network, the UE might
 incorrectly not apply the right configuration in case of a NW implementation
 that decides to not use a previous configuration and thereby signal it as
 such by not including the IEs.

Consequences if not approved:

- The UTRAN will not be able to switch off a previously configured Polling mechanism.
 - 2. The UTRAN will not have the ability to turn off the usage of the Secondary CPICH by the UE.
 - 3. The UTRAN will not be able to stop CPCP usage.
 - 4. The UTRAN will not be able to stop the application of header compression.

Clauses affected:	8.6.4.9 , 8.6.4.10 , 8.6.6.12 , 8.6.6.20
Other specs affected:	Other core specifications # 25.331 v4.3.0, CR 1319 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: http://www.3gpp.org/3G_Specs/CRs.htm. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked \(\mathcal{H} \) 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.

8.2.2.3 Reception of RADIO BEARER SETUP or RADIO BEARER RECONFIGURATION or RADIO BEARER RELEASE or TRANSPORT CHANNEL RECONFIGURATION or PHYSICAL CHANNEL RECONFIGURATION message by the UE

The UE shall be able to receive any of the following messages:

- RADIO BEARER SETUP message; or
- RADIO BEARER RECONFIGURATION message; or
- RADIO BEARER RELEASE message; or
- TRANSPORT CHANNEL RECONFIGURATION message; or
- PHYSICAL CHANNEL RECONFIGURATION message;

and perform a hard handover, even if no prior UE measurements have been performed on the target cell and/or frequency.

If the UE receives:

- a RADIO BEARER SETUP message; or
- a RADIO BEARER RECONFIGURATION message; or
- a RADIO BEARER RELEASE message; or
- a TRANSPORT CHANNEL RECONFIGURATION message; or
- a PHYSICAL CHANNEL RECONFIGURATION message:

it shall:

- set the variable ORDERED_RECONFIGURATION to TRUE;
- perform the physical layer synchronisation procedure as specified in [29];
 - act upon all received information elements as specified in subclause 8.6, unless specified in the following and perform the actions below.

The UE may first release the physical ch	annel configuration u	used at reception of th	e reconfiguration
message. The UE shall then:			

8.6.6.12 Secondary CPICH info

If the IE Secondary CPICH info is included, the UE:

- may use the channelisation code according to IE "channelisation code", with scrambling code
 according to IE "DL scrambling code" in the IE "Secondary CPICH info", for channel estimation of
 that radio link;
- may use the pilot bits on DPCCH for channel estimation.

If the IE Secondary CPICH info is not included, the UE shall:

not use any previously stored configuration corresponding to the usage of the Secondary CPICH info.

8.6.6.19 CPCH SET Info (FDD only)

If the UE has the capability to use CPCH, the UE shall use the following general procedures:

- if an IE "CPCH SET Info" is included in a dedicated message:
 - read the "CPCH set ID" included in the IE;
 - store the IE using the "CPCH set ID" as an address tag;
 - release any active dedicated physical channels in the uplink;
 - let the PCPCHs listed in the CPCH set be the default in the uplink for CPCH.
- if an IE "CPCH SET Info" is included in a System Information message:
 - read the "CPCH set ID" included in the IE;
 - store the IE using the "CPCH set ID" as an address tag.

8.6.6.20 CPCH set ID (FDD only)

If the UE has the capability to use CPCH, the UE shall use the following general procedures. The UE shall:

- if an IE "CPCH set ID" is included in a dedicated message and not as part of IE "CPCH SET Info":
 - use the IE as an address tag to retrieve the corresponding stored "CPCH SET Info";
 - release any active dedicated physical channels in the uplink;
 - let the PCPCHs listed in the CPCH set be the default in the uplink for CPCH.
- if an IE "CPCH set ID" is included in a dedicated message and not as part of IE "CPCH SET Info", and if there is no corresponding stored "CPCH SET Info":
 - release any active dedicated physical channels in the uplink;
 - let the last assigned PRACH be the default in the uplink for RACH;
 - obtain current System Information on SCCPCH to obtain and store the "CPCH SET info" IE(s);
 - upon receipt of a "CPCH SET Info" which corresponds to the "CPCH set ID" IE:
 - let the PCPCHs listed in that CPCH set be the default in the uplink for CPCH.
- if an IE "CPCH set ID" is not included in a dedicated message and the UE prior to the receipt of this message had configured the PCPCH as the default in the uplink:
 - stop using the PCPCH;
 - let the last assigned PRACH be the default in the uplink for RACH;

8.6.4.10 PDCP Info

If IE "PDCP info" is included, the UE shall:

- if the radio bearer is connected to a CS domain radio access bearer:
 - set the variable INVALID_CONFIGURATION to TRUE.
- if the IE "PDCP PDU header" is set to the value "absent":
 - if the IE "Support for lossless SRNS relocation" is true:
 - set the variable INVALID_CONFIGURATION to TRUE.
- if the IE "PDCP PDU header" is set to the value "present":
 - if the IE "Support for lossless SRNS relocation" is false:
 - if the IE "Header compression information" is absent:
 - set the variable INVALID_CONFIGURATION to TRUE.
- if the IE "Header compression information" is absent:
 - not use Header compression after the successful completion of this procedure;
 - remove any stored configuration for the IE "Header compression information";
- ___configure the PDCP entity for that radio bearer accordingly;
- configure the RLC entity for that radio bearer according to the value of the IE "Support for lossless SRNS relocation".

8.6.4.9 RLC Info

If the IE "RLC Info" is included, the UE shall:

- configure the transmitting and receiving RLC entities in the UE for that radio bearer accordingly.
- if IE "Polling Info" is absent:
 - remove any previously stored configuration for the IE "Polling Info"

If the IE "Transmission RLC discard" is not included for UM RLC or TM RLC, RLC discard procedure shall not be used for that radio bearer.

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Proposed change a	affects:	₩ (L	J)SIM	ME/UE	X Ra	dio Ac	cess Network	(X	Core Ne	etwork
Title: ♯	Modifi	cation of	f GPS timi	ng represe	ntation t	o avoid	d large intege	ers		
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Clauses affected:	第 11.3								
Other specs affected:	# Other core specifications # 25.331 v3.9.0, CR 1357r1 Test specifications O&M Specifications								
Other comments:	A consequence of the proposed CR is that range checking is moved from the encoder/ decoder to the ASN.1 application (depending on what is agreed regarding the extension of these fields)								

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<Cut until the next modified section>

11.3 Information element definitions

```
InformationElements DEFINITIONS AUTOMATIC TAGS ::=
      MEASUREMENT INFORMATION ELEMENTS (10.3.7)
__ ***************
<Cut until the next modified section>
UTRAN-GPSReferenceTime ::=
                                      SEQUENCE {
                                <u>INTEGER(0..2322431999999)</u>,
   utran-GPSTimingOfCell
    -- For utran-GPSTimingOfCell values above 2322431999999 are not
    -- used in this version of the specification
   utran-GPSTimingOfCell SEQUENCE {
                                      INTEGER (0..1023),
       ms-part
       ls-part
                                       INTEGER (0..4294967295)
   modeSpecificInfo
                                   CHOICE {
                                      SEQUENCE {
       fdd
           referenceIdentity
                                          PrimaryCPICH-Info
       tdd
                                       SEQUENCE {
           referenceIdentity
                                          CellParametersID
       }
                   OPTIONAL,
   sfn
                                      INTEGER (0..4095)
}
UTRAN-GPSReferenceTimeResult ::=
                                              SEOUENCE {
   ue GPSTimingOfCell
                              <u>INTEGER(0..37158911999999)</u>,
    -- For ue-GPSTimingOfCell values above 37158911999999 are not
    -- used in this version of the specification
                            SEQUENCE {
   ue-GPSTimingOfCell
                                       INTEGER (0.. 16383),
INTEGER (0..4294967295)
       ms-part
       ls-part
                                   CHOICE {
   modeSpecificInfo
                                      SEQUENCE {
       fdd
           referenceIdentity
                                          PrimaryCPICH-Info
       tdd
                                      SEQUENCE {
           referenceIdentity
                                          CellParametersID
   },
   sfn
                                       INTEGER (0..4095)
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Title:	Mod	dificati	on of GPS tir	ning repres	entatio	n to avoi	id large intege	ers		
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		<u>Impa</u>	cted function	ality: UE po	sitionir	ng				
		Interd	ting the signa	alling across	s the ra	dio inter	pecification of face se, interoperal			
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Clauses affected:	第 11.3								
	<u></u>								
Other specs affected:	Cother core specifications # 25.331 v4.3.0, CR 1358 Test specifications O&M Specifications								
Other comments:	A consequence of the proposed CR is that range checking is moved from the encoder/ decoder to the ASN.1 application (depending on what is agreed regarding the extension of these fields)								

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11.3 Information element definitions

```
<Cut until the next modified section>
InformationElements DEFINITIONS AUTOMATIC TAGS ::=
      MEASUREMENT INFORMATION ELEMENTS (10.3.7)
__ ***************
<Cut until the next modified section>
UTRAN-GPSReferenceTime ::= SEQUENCE {
                                  <u>INTEGER(0..2322431999999)</u>,
   utran-GPSTimingOfCell
    -- For utran-GPSTimingOfCell values above 2322431999999 are not
    -- used in this version of the specification
   utran-GPSTimingOfCell SEQUENCE {
                                      INTEGER (0..1023),
       ms-part
       ls-part
                                     INTEGER (0..4294967295)
   modeSpecificInfo
                                  CHOICE {
                                     SEQUENCE {
       fdd
           referenceIdentity
                                         PrimaryCPICH-Info
       tdd
                                      SEQUENCE {
           referenceIdentity
                                         CellParametersID
               OPTIONAL,
   sfn
                                      INTEGER (0..4095)
}
UTRAN-GPSReferenceTimeResult ::= SEQUENCE {
   ue GPSTimingOfCell
                             INTEGER(0...37158911999999),
    -- For ue-GPSTimingOfCell values above 37158911999999 are not
    -- used in this version of the specification
   ue-GPSTimingOfCell
                           SEQUENCE {
                             INTEGER (0.. 16383),
INTEGER (0..4294967295)
       ms-part
       ls-part
                                 CHOICE {
   modeSpecificInfo
                                     SEQUENCE {
       fdd
           referenceIdentity
                                         PrimaryCPICH-Info
       tdd
                                      SEQUENCE {
           referenceIdentity
                                          CellParametersID
   },
   sfn
                              INTEGER (0..4095)
}
```

	CHANGE REQUEST	-orm-və
¥ 25	5.331 CR 1352	
For <u>HELP</u> on using	g this form, see bottom of this page or look at the pop-up text over the ₩ symbol	's.
Proposed change affect	ects: ## (U)SIM ME/UE X Radio Access Network X Core Network X Core Network X C	rk
Title:	bortion of signalling connection establishment	
Source: # TS	SG-RAN WG2	
Work item code:	El Date: # 2002-02	
Det	Release: REL-4 e 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) C (ditorial modification) Release: REL-4 Release 1996) R97 R98 Release 1997) R98 Release 1998) R99 Release 1999) Release 1999) Release 1999) Release 1999) Release 4) Release 5)	s:
Reason for change: #	when NAS requests a signalling connection it passes an initial NAS messag and the RRC procedure Initial Direct Transfer is started. If no RRC connection exists (UE is in idle mode), the RRC connection establishment procedure is triggered before the Initial Direct transfer procedure can complete. In the current RRC specification, once the Initial direct transfer procedure has been started, it is not clear what will happen if NAS requests to abort the ongoing alling connection (during establishment). The cleanest behaviour would be end the ongoing RRC initial direct transfer procedure.	e on s going be to it is oit,
	Impacted functionality: The Initial direct transfer and RRC connection	

Correction: These procedure is aborted if a request to abort the signalling

affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

Correction to a function where the specification was missing a rule. Would not

connection during establishment is received from upper layers.

establishment procedures

Consequences if not approved:	Risk of UEs initiating signalling connections in cells where they are not registered on NAS level. Risk of dropped calls during establishment phase.
Clauses affected:	₩ 8.1.3.5a (new), 8.1.8.2a (new), 8.1.14.2
Other specs affected:	# Other core specifications # 25.331 v3.9.0, CR 1352r1 Test specifications O&M Specifications
Other comments:	ж

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

8.1.3 RRC connection establishment

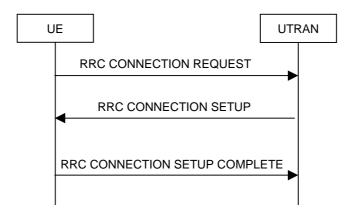


Figure 8.1.3-1: RRC Connection Establishment, network accepts RRC connection

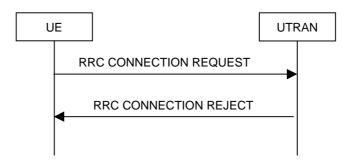


Figure 8.1.3-2: RRC Connection Establishment, network rejects RRC connection

8.1.3.1 General

The purpose of this procedure is to establish an RRC connection.

8.1.3.2 Initiation

The UE shall initiate the procedure when upper layers in the UE requests the establishment of a signalling connection and the UE is in idle mode (no RRC connection exists), as specified in subclause 8.1.8.

Upon initiation of the procedure, the UE shall:

- set the variable PROTOCOL_ERROR_INDICATOR to FALSE;
- if the USIM is present:
 - set the value of "THRESHOLD" in the variable "START_THRESHOLD" to the 20 MSBs of the value stored in the USIM [50] for the maximum value of START for each CN Domain.
- set the IE "Initial UE identity" in the variable INITIAL_UE_IDENTITY according to subclause 8.5.1;
- set the contents of the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
- set CFN in relation to SFN of current cell according to subclause 8.5.15;

- perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
- submit the RRC CONNECTION REQUEST message for transmission on the uplink CCCH;
- set counter V300 to 1; and
- start timer T300 when the MAC layer indicates success or failure to transmit the message;
- select a Secondary CCPCH according to [4];
- start receiving all FACH transport channels mapped on the selected Secondary CCPCH.

8.1.3.3 RRC CONNECTION REQUEST message contents to set

The UE shall, in the transmitted RRC CONNECTION REQUEST message:

- set the IE "Establishment cause" to the value of the variable ESTABLISHMENT_CAUSE;
- set the IE "Initial UE identity" to the value of the variable INITIAL_UE_IDENTITY;
- set the IE "Protocol error indicator" to the value of the variable PROTOCOL_ERROR_INDICATOR;
- include a measurement report in the IE "Measured results on RACH", as specified in the IE "Intrafrequency reporting quantity for RACH reporting" and the IE "Maximum number of reported cells on RACH" in System Information Block type 11; and
- include in the IE "Measured results on RACH" all requested reporting quantities for cells for which measurements are reported; and
- take care that the maximum allowed message size is not exceeded when forming the IE "Measured results on RACH".

8.1.3.4 Reception of an RRC CONNECTION REQUEST message by the UTRAN

Upon receiving an RRC CONNECTION REQUEST message, UTRAN should either:

 submit an RRC CONNECTION SETUP message to the lower layers for transmission on the downlink CCCH; or

NOTE: The RRC CONNECTION SETUP message always includes the IEs "Added or Reconfigured TrCH information list", both for uplink and downlink transport channels, even if UTRAN orders the UE to move to CELL_FACH and hence need not configure any transport channels. In these cases, UTRAN may include a configuration that adds little to the encoded message size e.g. a DCH with a single zero size transport format. At a later stage, UTRAN may either remove or reconfigure this configuration.

 submit an RRC CONNECTION REJECT message on the downlink CCCH. In the RRC CONNECTION REJECT message, the UTRAN may direct the UE to another UTRA carrier or to another system. After the RRC CONNECTION REJECT message has been sent, all context information for the UE may be deleted in UTRAN.

8.1.3.5 Cell re-selection or T300 timeout

- if the UE has not yet received an RRC CONNECTION SETUP message with the value of the IE "Initial UE identity" equal to the value of the variable INITIAL_UE_IDENTITY; and

- if cell re-selection or expiry of timer T300 occurs:

the UE shall:

- check the value of V300; and
 - if V300 is equal to or smaller than N300:
 - if cell re-selection occurred:
 - set CFN in relation to SFN of current cell according to subclause 8.5.15.
 - set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
 - perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13; and
 - apply the given Access Service Class when accessing the RACH;
 - submit a new RRC CONNECTION REQUEST message to lower layers for transmission on the uplink CCCH;
 - increment counter V300;
 - restart timer T300 when the MAC layer indicates success or failure to transmit the message.
 - if V300 is greater than N300:
 - enter idle mode.
 - consider the procedure to be unsuccessful;
 - Other actions the UE shall perform when entering idle mode from connected mode are specified in subclause 8.5.2;
 - the procedure ends.

8.1.3.5a Abortion of RRC connection establishment

If the UE has not yet entered UTRA RRC Connected mode and the RRC connection establishment is to be aborted as specified in subclause 8.1.8, the UE shall:

- consider the procedure to be unsuccessful;
- perform the actions when entering idle mode as specified in subclause 8.5.2;

The procedure ends.

8.1.3.6 Reception of an RRC CONNECTION SETUP message by the UE

The UE shall compare the value of the IE "Initial UE identity" in the received RRC CONNECTION SETUP message with the value of the variable INITIAL_UE_IDENTITY.

If the values are different, the UE shall:

- ignore the rest of the message.

If the values are identical, the UE shall:

- stop timer T300, and act upon all received information elements as specified in subclause 8.6, unless specified otherwise in the following:
 - if the UE will be in the CELL_FACH state at the conclusion of this procedure:
 - if the IE "Frequency info" is included:
 - select a suitable UTRA cell according to [4] on that frequency;
 - select PRACH according to subclause 8.5.17;
 - select Secondary CCPCH according to subclause 8.5.19;
 - ignore the IE "UTRAN DRX cycle length coefficient" and stop using DRX.
- perform the physical layer synchronization procedure as specified in [29];
- enter a state according to subclause 8.6.3.3;
- submit an RRC CONNECTION SETUP COMPLETE message to the lower layers on the uplink DCCH after successful state transition per subclause 8.6.3.3, with the contents set as specified below:
 - set the IE "RRC transaction identifier" to:
 - the value of "RRC transaction identifier" in the entry for the RRC CONNECTION SETUP message in the table "Accepted transactions" in the variable TRANSACTIONS; and
 - clear that entry.
 - if the USIM is present:
 - set the "START" for each CN domain in the IE "START list" in the RRC CONNECTION SETUP COMPLETE message with the corresponding START value that is stored in the USIM [50]; and then
 - set the START value stored in the USIM [50] for any CN domain to the value "THRESHOLD" of the variable START THRESHOLD.
 - if the USIM is not present:
 - set the "START" for each CN domain in the IE "START list" in the RRC CONNECTION SETUP COMPLETE message to zero;
 - set the value of "THRESHOLD" in the variable "START_THRESHOLD" to the default value [40].
 - retrieve its UTRA UE radio access capability information elements from variable UE_CAPABILITY_REQUESTED; and then
 - include this in IE "UE radio access capability" and IE "UE radio access capability extension", provided this IE is included in variable UE_CAPABILITY_REQUESTED;
 - retrieve its inter-RAT-specific UE radio access capability information elements from variable UE_CAPABILITY_REQUESTED; and then
 - include this in IE "UE system specific capability".

When the RRC CONNECTION SETUP COMPLETE message has been submitted to lower layers for transmission the UE shall:

- if the UE has entered CELL_FACH state:
 - start timer T305 using its initial value if periodical update has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity" in system information block type 1.
- store the contents of the variable UE_CAPABILITY_REQUESTED in the variable UE_CAPABILITY_TRANSFERRED;
- initialise variables upon entering UTRA RRC connected mode as specified in subclause 13.4;
- consider the procedure to be successful;

And the procedure ends.

8.1.3.7 Physical channel failure or cell re-selection

- If the UE failed to establish, per subclause 8.5.4, the physical channel(s) indicated in the RRC CONNECTION SETUP message; or
- if the UE performs cell re-selection; or
- if the UE will be in the CELL_FACH state at the conclusion of this procedure; and
- if the received RRC CONNECTION SETUP message included the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD), and the UE selected another cell than indicated by this IE; or
- if the contents of the variable C_RNTI is empty;
- after having received an RRC CONNECTION SETUP message with the value of the IE "Initial UE identity" equal to the value of the variable INITIAL_UE_IDENTITY; and
- before the RRC CONNECTION SETUP COMPLETE message is delivered to lower layers for transmission:

the UE shall:

- clear the entry for the RRC CONNECTION SETUP message in the table "Accepted transactions" in the variable TRANSACTIONS;
- check the value of V300, and:
 - if V300 is equal to or smaller than N300:
 - set CFN in relation to SFN of current cell according to subclause 8.5.15;
 - set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
 - perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
 - submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
 - increment counter V300; and
 - restart timer T300 when the MAC layer indicates success or failure in transmitting the message.

- if V300 is greater than N300:
 - enter idle mode;
 - perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
 - consider the procedure to be successful;
 - the procedure ends.

8.1.3.8 Invalid RRC CONNECTION SETUP message, unsupported configuration or invalid configuration

If the UE receives an RRC CONNECTION SETUP message which contains an IE "Initial UE identity" with a value which is identical to the value of the variable INITIAL_UE_IDENTITY, but the RRC CONNECTION SETUP message contains a protocol error causing the variable PROTOCOL_ERROR_REJECT to be set to TRUE according to clause 9, the UE shall perform procedure specific error handling as follows. The UE shall:

- clear the entry for the RRC CONNECTION SETUP message in the table "Rejected transactions" in the variable TRANSACTIONS and proceed as below;
- if the UE receives an RRC CONNECTION SETUP message which contains an IE "Initial UE identity" with a value which is identical to the value of the variable INITIAL_UE_IDENTITY; and
- the RRC CONNECTION SETUP message contained a configuration the UE does not support;
 and/or
- the variable UNSUPPORTED_CONFIGURATION becomes set to TRUE due to the received RRC CONNECTION SETUP message; and/or
- the variable INVALID_CONFIGURATION becomes set to TRUE due to the received RRC CONNECTION SETUP message:

the UE shall:

- clear the entry for the RRC CONNECTION SETUP message in the table "Accepted transactions" in the variable TRANSACTIONS and proceed as below;
- if V300 is equal to or smaller than N300:
 - set the variable PROTOCOL_ERROR_INDICATOR to TRUE;
 - set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
 - perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13; and
 - apply the given Access Service Class when accessing the RACH;
 - submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
 - increment counter V300; and
 - restart timer T300 when the MAC layer indicates success or failure in transmitting the message.
- if V300 is greater than N300:

- enter idle mode;
- perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
- consider the procedure to be successful;
- the procedure ends.

8.1.3.9 Reception of an RRC CONNECTION REJECT message by the UE

When the UE receives an RRC CONNECTION REJECT message on the downlink CCCH, it shall compare the value of the IE "Initial UE identity" in the received RRC CONNECTION REJECT message with the value of the variable INITIAL_UE_IDENTITY:

If the values are different, the UE shall ignore the rest of the message;

If the values are identical, the UE shall stop timer T300 and:

- if the IE "wait time" <> '0'; and
- if the IE "frequency info" is present and:
 - if V300 is equal to or smaller than N300:
 - initiate cell selection on the designated UTRA carrier;
 - after having selected and camped on a cell:
 - set CFN in relation to SFN of current cell according to subclause 8.5.15;
 - set the contents of the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
 - perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
 - transmit an RRC CONNECTION REQUEST message on the uplink CCCH;
 - reset counter V300;
 - start timer T300 when the MAC layer indicates success or failure in transmitting the message;
 - disable cell reselection to original carrier until the time stated in the IE "wait time" has elapsed:
 - if a cell selection on the designated carrier fails:
 - wait for the time stated in the IE "wait time";
 - set CFN in relation to SFN of current cell according to subclause 8.5.15;
 - set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
 - perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
 - then submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH of the original serving cell;

- increment counter V300;
- restart timer T300 when the MAC layer indicates success or failure to transmit the message;
- if V300 is greater than N300:
 - enter idle mode;
 - perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
 - consider the procedure to be successful;
 - the procedure ends.
- if the IE "inter-RAT info" is present and:
 - if V300 is equal to or smaller than N300:
 - perform cell selection in the designated system;
 - delay cell reselection to the original system until the time stated in the IE " wait time" has elapsed.
 - if cell selection in the designated system fails:
 - wait at least the time stated in the IE "wait time";
 - set CFN in relation to SFN of current cell according to subclause 8.5.15;
 - set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.2.
 - perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
 - then submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
 - increment counter V300;
 - restart timer T300 when the MAC layer indicates success or failure to transmit the message;
 - if V300 is greater than N300:
 - enter idle mode;
 - perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode:
 - consider the procedure to be successful;
 - the procedure ends.
- If neither the IEs "frequency info" nor "inter-RAT info" are present and:
 - if V300 is equal to or smaller than N300:
 - wait at least the time stated in the IE "wait time";

- set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.2;
- perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
- submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
- increment counter V300;
- restart timer T300 when the MAC layer indicates success or failure to transmit the message;
- if V300 is greater than N300:
 - enter idle mode;
 - perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
 - consider the procedure to be successful;
 - the procedure ends.
- if the IE "wait time" = '0':
 - enter idle mode:
 - perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
 - consider the procedure to be successful;
 - the procedure ends.

8.1.3.10 Invalid RRC CONNECTION REJECT message

If the UE receives an RRC CONNECTION REJECT message which contains an IE "Initial UE identity" with a value which is identical to the value of the IE "Initial UE identity" in the most recent RRC CONNECTION REQUEST message sent by the UE; but the RRC CONNECTION REJECT message contains a protocol error causing the variable PROTOCOL_ERROR_REJECT to be set to TRUE according to clause 9, the UE shall perform procedure specific error handling as follows:

The UE shall:

- if V300 is equal to or smaller than N300:
 - set the variable PROTOCOL_ERROR_INDICATOR to TRUE;
 - set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
 - perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
 - submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
 - increment counter V300;
 - restart timer T300 when the MAC layer indicates success or failure to transmit the message.
- if V300 is greater than N300:

- enter idle mode;
- perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
- consider the procedure to be successful;
- the procedure ends.

8.1.8 Initial Direct transfer

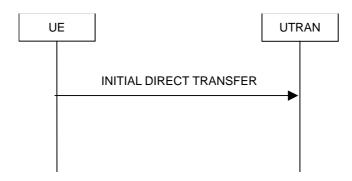


Figure 8.1.8-1: Initial Direct transfer in the uplink, normal flow

8.1.8.1 General

The initial direct transfer procedure is used in the uplink to establish a signalling connection. It is also used to carry an initial upper layer (NAS) message over the radio interface.

8.1.8.2 Initiation of Initial direct transfer procedure in the UE

In the UE, the initial direct transfer procedure shall be initiated, when the upper layers request establishment of a signalling connection. This request also includes a request for the transfer of a NAS message.

Upon initiation of the initial direct transfer procedure when the UE is in idle mode, the UE shall:

- set the variable ESTABLISHMENT_CAUSE to the cause for establishment indicated by upper layers;
- perform an RRC connection establishment procedure, according to subclause 8.1.3;
- if the RRC connection establishment procedure was not successful:
 - indicate failure to establish the signalling connection to upper layers and end the procedure.
- when the RRC connection establishment procedure is completed successfully:
 - continue with the initial direct transfer procedure as below.

Upon initiation of the initial direct transfer procedure when the UE is in CELL_PCH or URA_PCH state, the UE shall:

- perform a cell update procedure, according to subclause 8.3.1, using the cause "uplink data transmission";
- when the cell update procedure completed successfully:
 - continue with the initial direct transfer procedure as below.

The UE shall, in the INITIAL DIRECT TRANSFER message:

- set the IE "NAS message" as received from upper layers; and
- set the IE "CN domain identity" as indicated by the upper layers; and

- set the IE "Intra Domain NAS Node Selector" as follows:
 - derive the IE "Intra Domain NAS Node Selector" from TMSI/PMTSI, IMSI, or IMEI; and
 - provide the coding of the IE "Intra Domain NAS Node Selector" according to the following priorities:
 - 1. derive the routing parameter for IDNNS from TMSI (CS domain) or PTMSI (PS domain) whenever a valid TMSI/PTMSI is available;
 - 2. base the routing parameter for IDNNS on IMSI when no valid TMSI/PTMSI is available;
 - 3. base the routing parameter for IDNNS on IMEI only if no (U)SIM is inserted in the UE.

In CELL FACH state, the UE shall:

- include a measurement report in the IE "Measured results on RACH", as specified in the IE "Intrafrequency reporting quantity for RACH reporting" and the IE "Maximum number of reported cells on RACH" in System Information Block type 12 (or "System Information Block Type 11" if "System Information Block Type 12" is not being broadcast);
- include in the IE "Measured results on RACH" all requested reporting quantities for cells for which measurements are reported.

The UE shall:

- transmit the INITIAL DIRECT TRANSFER message on the uplink DCCH using AM RLC on signalling radio bearer RB3;
- when the INITIAL DIRECT TRANSFER message has been submitted to lower layers for transmission:
 - confirm the establishment of a signalling connection to upper layers; and
 - add the signalling connection with the identity indicated by the IE "CN domain identity" in the variable ESTABLISHED_SIGNALLING_CONNECTIONS; and
 - the procedure ends.

When not stated otherwise elsewhere, the UE may also initiate the initial direct transfer procedure when another procedure is ongoing, and in that case the state of the latter procedure shall not be affected.

A new signalling connection request may be received from upper layers during transition to idle mode. In those cases, from the time of the indication of release to upper layers until the UE has entered idle mode, any such upper layer request to establish a new signalling connection shall be queued. This request shall be processed after the UE has entered idle mode.

8.1.8.2a Abortion of signalling connection establishment

If the UE receives a request from upper layers to release (abort) the signalling connection for the CN domain for which the initial direct transfer procedure is ongoing, the UE shall:

- if the UE has not yet entered UTRA RRC connected mode:
 - abort the RRC connection establishment procedure as specifiied in subclause 8.1.3;

the procedure ends.

8.1.8.3 Reception of INITIAL DIRECT TRANSFER message by the UTRAN

On reception of the INITIAL DIRECT TRANSFER message the NAS message should be routed using the IE "CN Domain Identity". UTRAN may also use the IE "Intra Domain NAS Node Selector" for routing among the CN nodes for the addressed CN domain.

If no signalling connection exists towards the chosen node, then a signalling connection is established.

If the IE "Measured results on RACH" is present in the message, the UTRAN should extract the contents to be used for radio resource control.

When the UTRAN receives an INITIAL DIRECT TRANSFER message, it shall not affect the state of any other ongoing RRC procedures, when not stated otherwise elsewhere.

8.1.14.2 Initiation

The UE shall, on receiving a request to release (abort) the signalling connection <u>for a specific CN domain</u> from upper layers:

- if a signalling connection in the variable ESTABLISHED SIGNALLING CONNECTIONS for the specific CN domain identified with the IE "CN domain identity" exists:
 - initiate the signalling connection release indication procedure. Note to Hans: indentation changed to B2

- otherwise:

- abort any ongoing establishment of signalling connection for that specific CN domain as specified in 8.1.3.5a.

Upon initiation of the signalling connection release indication procedure in CELL_PCH or URA_PCH state, the UE shall:

- perform a cell update procedure, according to subclause 8.3.1, using the cause "uplink data transmission";
- when the cell update procedure completed successfully:
 - continue with the signalling connection release indication procedure as below.

The UE shall:

- set the IE "CN Domain Identity" to the value indicated by the upper layers. The value of the IE indicates the CN domain whose associated signalling connection the upper layers are indicating to be released;
- remove the signalling connection with the identity indicated by upper layers from the variable ESTABLISHED_SIGNALLING_CONNECTIONS;
- transmit a SIGNALLING CONNECTION RELEASE INDICATION message on DCCH using AM RLC.

When the SIGNALLING CONNECTION RELEASE INDICATION message has been submitted to lower layers for transmission the procedure ends.

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Impact analysis:

establishment have been added.

<u>Impacted functionality</u>: The Initial direct transfer and RRC connection establishment procedures

<u>Correction</u>: These procedure is aborted if a request to abort the signalling connection during establishment is received from upper layers.

Correction to a function where the specification was missing a rule. Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

Consequences if not approved:	Risk of UEs initiating signalling connections in cells where they are not registered on NAS level. Risk of dropped calls during establishment phase.
Clauses affected:	策 8.1.3.5a (new), 8.1.8.2a (new), 8.1.14.2
Other specs affected:	# Other core specifications # 25.331 v4.3.0, CR 1353 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: http://www.3gpp.org/3G Specs/CRs.htm. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked \(\mathcal{H} \) 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.

8.1.3 RRC connection establishment

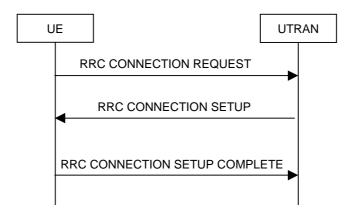


Figure 8.1.3-1: RRC Connection Establishment, network accepts RRC connection

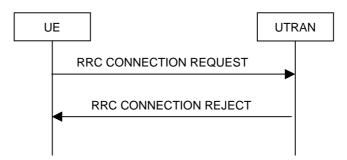


Figure 8.1.3-2: RRC Connection Establishment, network rejects RRC connection

8.1.3.1 General

The purpose of this procedure is to establish an RRC connection.

8.1.3.2 Initiation

The UE shall initiate the procedure when upper layers in the UE requests the establishment of a signalling connection and the UE is in idle mode (no RRC connection exists), as specified in subclause 8.1.8.

Upon initiation of the procedure, the UE shall:

- set the variable PROTOCOL_ERROR_INDICATOR to FALSE;
- if the USIM is present:
 - set the value of "THRESHOLD" in the variable "START_THRESHOLD" to the 20 MSBs of the value stored in the USIM [50] for the maximum value of START for each CN Domain.
- set the IE "Initial UE identity" in the variable INITIAL_UE_IDENTITY according to subclause 8.5.1;
- set the contents of the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
- set CFN in relation to SFN of current cell according to subclause 8.5.15;

- perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
- submit the RRC CONNECTION REQUEST message for transmission on the uplink CCCH;
- set counter V300 to 1; and
- start timer T300 when the MAC layer indicates success or failure to transmit the message;
- select a Secondary CCPCH according to [4];
- start receiving all FACH transport channels mapped on the selected Secondary CCPCH.

8.1.3.3 RRC CONNECTION REQUEST message contents to set

The UE shall, in the transmitted RRC CONNECTION REQUEST message:

- set the IE "Establishment cause" to the value of the variable ESTABLISHMENT_CAUSE;
- set the IE "Initial UE identity" to the value of the variable INITIAL_UE_IDENTITY;
- set the IE "Protocol error indicator" to the value of the variable PROTOCOL_ERROR_INDICATOR;
- include a measurement report in the IE "Measured results on RACH", as specified in the IE "Intrafrequency reporting quantity for RACH reporting" and the IE "Maximum number of reported cells on RACH" in System Information Block type 11; and
- include in the IE "Measured results on RACH" all requested reporting quantities for cells for which measurements are reported; and
- take care that the maximum allowed message size is not exceeded when forming the IE "Measured results on RACH".

8.1.3.4 Reception of an RRC CONNECTION REQUEST message by the UTRAN

Upon receiving an RRC CONNECTION REQUEST message, UTRAN should either:

 submit an RRC CONNECTION SETUP message to the lower layers for transmission on the downlink CCCH; or

NOTE: The RRC CONNECTION SETUP message always includes the IEs "Added or Reconfigured TrCH information list", both for uplink and downlink transport channels, even if UTRAN orders the UE to move to CELL_FACH and hence need not configure any transport channels. In these cases, UTRAN may include a configuration that adds little to the encoded message size e.g. a DCH with a single zero size transport format. At a later stage, UTRAN may either remove or reconfigure this configuration.

 submit an RRC CONNECTION REJECT message on the downlink CCCH. In the RRC CONNECTION REJECT message, the UTRAN may direct the UE to another UTRA carrier or to another system. After the RRC CONNECTION REJECT message has been sent, all context information for the UE may be deleted in UTRAN.

8.1.3.5 Cell re-selection or T300 timeout

- if the UE has not yet received an RRC CONNECTION SETUP message with the value of the IE "Initial UE identity" equal to the value of the variable INITIAL_UE_IDENTITY; and

- if cell re-selection or expiry of timer T300 occurs:

the UE shall:

- check the value of V300; and
 - if V300 is equal to or smaller than N300:
 - if cell re-selection occurred:
 - set CFN in relation to SFN of current cell according to subclause 8.5.15.
 - set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
 - perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13; and
 - apply the given Access Service Class when accessing the RACH;
 - submit a new RRC CONNECTION REQUEST message to lower layers for transmission on the uplink CCCH;
 - increment counter V300;
 - restart timer T300 when the MAC layer indicates success or failure to transmit the message.
 - if V300 is greater than N300:
 - enter idle mode.
 - consider the procedure to be unsuccessful;
 - Other actions the UE shall perform when entering idle mode from connected mode are specified in subclause 8.5.2;
 - the procedure ends.

8.1.3.5a Abortion of RRC connection establishment

If the UE has not yet entered UTRA RRC Connected mode and the RRC connection establishment is to be aborted as specified in subclause 8.1.8, the UE shall:

- consider the procedure to be unsuccessful;
- perform the actions when entering idle mode as specified in subclause 8.5.2;

The procedure ends.

8.1.3.6 Reception of an RRC CONNECTION SETUP message by the UE

The UE shall compare the value of the IE "Initial UE identity" in the received RRC CONNECTION SETUP message with the value of the variable INITIAL_UE_IDENTITY.

If the values are different, the UE shall:

- ignore the rest of the message.

If the values are identical, the UE shall:

- stop timer T300, and act upon all received information elements as specified in subclause 8.6, unless specified otherwise in the following:
 - if the UE will be in the CELL_FACH state at the conclusion of this procedure:
 - if the IE "Frequency info" is included:
 - select a suitable UTRA cell according to [4] on that frequency;
 - select PRACH according to subclause 8.5.17;
 - select Secondary CCPCH according to subclause 8.5.19;
 - ignore the IE "UTRAN DRX cycle length coefficient" and stop using DRX.
- perform the physical layer synchronization procedure as specified in [29];
- enter a state according to subclause 8.6.3.3;
- submit an RRC CONNECTION SETUP COMPLETE message to the lower layers on the uplink DCCH after successful state transition per subclause 8.6.3.3, with the contents set as specified below:
 - set the IE "RRC transaction identifier" to:
 - the value of "RRC transaction identifier" in the entry for the RRC CONNECTION SETUP message in the table "Accepted transactions" in the variable TRANSACTIONS; and
 - clear that entry.
 - if the USIM is present:
 - set the "START" for each CN domain in the IE "START list" in the RRC CONNECTION SETUP COMPLETE message with the corresponding START value that is stored in the USIM [50]; and then
 - set the START value stored in the USIM [50] for any CN domain to the value "THRESHOLD" of the variable START THRESHOLD.
 - if the USIM is not present:
 - set the "START" for each CN domain in the IE "START list" in the RRC CONNECTION SETUP COMPLETE message to zero;
 - set the value of "THRESHOLD" in the variable "START_THRESHOLD" to the default value [40].
 - retrieve its UTRA UE radio access capability information elements from variable UE_CAPABILITY_REQUESTED; and then
 - include this in IE "UE radio access capability" and IE "UE radio access capability extension", provided this IE is included in variable UE_CAPABILITY_REQUESTED;
 - retrieve its inter-RAT-specific UE radio access capability information elements from variable UE_CAPABILITY_REQUESTED; and then
 - include this in IE "UE system specific capability".

When the RRC CONNECTION SETUP COMPLETE message has been submitted to lower layers for transmission the UE shall:

- if the UE has entered CELL_FACH state:
 - start timer T305 using its initial value if periodical update has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity" in system information block type 1.
- store the contents of the variable UE_CAPABILITY_REQUESTED in the variable UE_CAPABILITY_TRANSFERRED;
- initialise variables upon entering UTRA RRC connected mode as specified in subclause 13.4;
- consider the procedure to be successful;

And the procedure ends.

8.1.3.7 Physical channel failure or cell re-selection

- If the UE failed to establish, per subclause 8.5.4, the physical channel(s) indicated in the RRC CONNECTION SETUP message; or
- if the UE performs cell re-selection; or
- if the UE will be in the CELL_FACH state at the conclusion of this procedure; and
- if the received RRC CONNECTION SETUP message included the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD), and the UE selected another cell than indicated by this IE; or
- if the contents of the variable C_RNTI is empty;
- after having received an RRC CONNECTION SETUP message with the value of the IE "Initial UE identity" equal to the value of the variable INITIAL_UE_IDENTITY; and
- before the RRC CONNECTION SETUP COMPLETE message is delivered to lower layers for transmission:

the UE shall:

- clear the entry for the RRC CONNECTION SETUP message in the table "Accepted transactions" in the variable TRANSACTIONS;
- check the value of V300, and:
 - if V300 is equal to or smaller than N300:
 - set CFN in relation to SFN of current cell according to subclause 8.5.15;
 - set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
 - perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
 - submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
 - increment counter V300; and
 - restart timer T300 when the MAC layer indicates success or failure in transmitting the message.

- if V300 is greater than N300:
 - enter idle mode;
 - perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
 - consider the procedure to be successful;
 - the procedure ends.

8.1.3.8 Invalid RRC CONNECTION SETUP message, unsupported configuration or invalid configuration

If the UE receives an RRC CONNECTION SETUP message which contains an IE "Initial UE identity" with a value which is identical to the value of the variable INITIAL_UE_IDENTITY, but the RRC CONNECTION SETUP message contains a protocol error causing the variable PROTOCOL_ERROR_REJECT to be set to TRUE according to clause 9, the UE shall perform procedure specific error handling as follows. The UE shall:

- clear the entry for the RRC CONNECTION SETUP message in the table "Rejected transactions" in the variable TRANSACTIONS and proceed as below;
- if the UE receives an RRC CONNECTION SETUP message which contains an IE "Initial UE identity" with a value which is identical to the value of the variable INITIAL_UE_IDENTITY; and
- the RRC CONNECTION SETUP message contained a configuration the UE does not support;
 and/or
- the variable UNSUPPORTED_CONFIGURATION becomes set to TRUE due to the received RRC CONNECTION SETUP message; and/or
- the variable INVALID_CONFIGURATION becomes set to TRUE due to the received RRC CONNECTION SETUP message:

the UE shall:

- clear the entry for the RRC CONNECTION SETUP message in the table "Accepted transactions" in the variable TRANSACTIONS and proceed as below;
- if V300 is equal to or smaller than N300:
 - set the variable PROTOCOL_ERROR_INDICATOR to TRUE;
 - set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
 - perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13; and
 - apply the given Access Service Class when accessing the RACH;
 - submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
 - increment counter V300; and
 - restart timer T300 when the MAC layer indicates success or failure in transmitting the message.
- if V300 is greater than N300:

- enter idle mode;
- perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
- consider the procedure to be successful;
- the procedure ends.

8.1.3.9 Reception of an RRC CONNECTION REJECT message by the UE

When the UE receives an RRC CONNECTION REJECT message on the downlink CCCH, it shall compare the value of the IE "Initial UE identity" in the received RRC CONNECTION REJECT message with the value of the variable INITIAL UE IDENTITY:

If the values are different, the UE shall ignore the rest of the message;

If the values are identical, the UE shall stop timer T300 and:

- if the IE "wait time" <> '0'; and
- if the IE "frequency info" is present and:
 - if V300 is equal to or smaller than N300:
 - initiate cell selection on the designated UTRA carrier;
 - after having selected and camped on a cell:
 - set CFN in relation to SFN of current cell according to subclause 8.5.15;
 - set the contents of the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
 - perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
 - transmit an RRC CONNECTION REQUEST message on the uplink CCCH;
 - reset counter V300;
 - start timer T300 when the MAC layer indicates success or failure in transmitting the message;
 - disable cell reselection to original carrier until the time stated in the IE "wait time" has elapsed;
 - if a cell selection on the designated carrier fails:
 - wait for the time stated in the IE "wait time";
 - set CFN in relation to SFN of current cell according to subclause 8.5.15;
 - set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
 - perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
 - then submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH of the original serving cell;

- increment counter V300;
- restart timer T300 when the MAC layer indicates success or failure to transmit the message;
- if V300 is greater than N300:
 - enter idle mode;
 - perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
 - consider the procedure to be successful;
 - the procedure ends.
- if the IE "inter-RAT info" is present and:
 - if V300 is equal to or smaller than N300:
 - perform cell selection in the designated system;
 - delay cell reselection to the original system until the time stated in the IE " wait time" has elapsed.
 - if cell selection in the designated system fails:
 - wait at least the time stated in the IE "wait time";
 - set CFN in relation to SFN of current cell according to subclause 8.5.15;
 - set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.2.
 - perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
 - then submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
 - increment counter V300;
 - restart timer T300 when the MAC layer indicates success or failure to transmit the message;
 - if V300 is greater than N300:
 - enter idle mode;
 - perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode:
 - consider the procedure to be successful;
 - the procedure ends.
- If neither the IEs "frequency info" nor "inter-RAT info" are present and:
 - if V300 is equal to or smaller than N300:
 - wait at least the time stated in the IE "wait time";

- set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.2;
- perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
- submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
- increment counter V300;
- restart timer T300 when the MAC layer indicates success or failure to transmit the message;
- if V300 is greater than N300:
 - enter idle mode;
 - perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
 - consider the procedure to be successful;
 - the procedure ends.
- if the IE "wait time" = '0':
 - enter idle mode:
 - perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
 - consider the procedure to be successful;
 - the procedure ends.

8.1.3.10 Invalid RRC CONNECTION REJECT message

If the UE receives an RRC CONNECTION REJECT message which contains an IE "Initial UE identity" with a value which is identical to the value of the IE "Initial UE identity" in the most recent RRC CONNECTION REQUEST message sent by the UE; but the RRC CONNECTION REJECT message contains a protocol error causing the variable PROTOCOL_ERROR_REJECT to be set to TRUE according to clause 9, the UE shall perform procedure specific error handling as follows:

The UE shall:

- if V300 is equal to or smaller than N300:
 - set the variable PROTOCOL_ERROR_INDICATOR to TRUE;
 - set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
 - perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
 - submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
 - increment counter V300;
 - restart timer T300 when the MAC layer indicates success or failure to transmit the message.
- if V300 is greater than N300:

- enter idle mode;
- perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
- consider the procedure to be successful;
- the procedure ends.

8.1.8 Initial Direct transfer

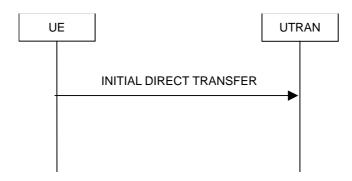


Figure 8.1.8-1: Initial Direct transfer in the uplink, normal flow

8.1.8.1 General

The initial direct transfer procedure is used in the uplink to establish a signalling connection. It is also used to carry an initial upper layer (NAS) message over the radio interface.

8.1.8.2 Initiation of Initial direct transfer procedure in the UE

In the UE, the initial direct transfer procedure shall be initiated, when the upper layers request establishment of a signalling connection. This request also includes a request for the transfer of a NAS message.

Upon initiation of the initial direct transfer procedure when the UE is in idle mode, the UE shall:

- set the variable ESTABLISHMENT_CAUSE to the cause for establishment indicated by upper layers;
- perform an RRC connection establishment procedure, according to subclause 8.1.3;
- if the RRC connection establishment procedure was not successful:
 - indicate failure to establish the signalling connection to upper layers and end the procedure.
- when the RRC connection establishment procedure is completed successfully:
 - continue with the initial direct transfer procedure as below.

Upon initiation of the initial direct transfer procedure when the UE is in CELL_PCH or URA_PCH state, the UE shall:

- perform a cell update procedure, according to subclause 8.3.1, using the cause "uplink data transmission";
- when the cell update procedure completed successfully:
 - continue with the initial direct transfer procedure as below.

The UE shall, in the INITIAL DIRECT TRANSFER message:

- set the IE "NAS message" as received from upper layers; and
- set the IE "CN domain identity" as indicated by the upper layers; and

- set the IE "Intra Domain NAS Node Selector" as follows:
 - derive the IE "Intra Domain NAS Node Selector" from TMSI/PMTSI, IMSI, or IMEI; and
 - provide the coding of the IE "Intra Domain NAS Node Selector" according to the following priorities:
 - 1. derive the routing parameter for IDNNS from TMSI (CS domain) or PTMSI (PS domain) whenever a valid TMSI/PTMSI is available;
 - 2. base the routing parameter for IDNNS on IMSI when no valid TMSI/PTMSI is available;
 - 3. base the routing parameter for IDNNS on IMEI only if no (U)SIM is inserted in the UE.

In CELL FACH state, the UE shall:

- include a measurement report in the IE "Measured results on RACH", as specified in the IE "Intrafrequency reporting quantity for RACH reporting" and the IE "Maximum number of reported cells on RACH" in System Information Block type 12 (or "System Information Block Type 11" if "System Information Block Type 12" is not being broadcast);
- include in the IE "Measured results on RACH" all requested reporting quantities for cells for which measurements are reported.

The UE shall:

- transmit the INITIAL DIRECT TRANSFER message on the uplink DCCH using AM RLC on signalling radio bearer RB3;
- when the INITIAL DIRECT TRANSFER message has been submitted to lower layers for transmission:
 - confirm the establishment of a signalling connection to upper layers; and
 - add the signalling connection with the identity indicated by the IE "CN domain identity" in the variable ESTABLISHED_SIGNALLING_CONNECTIONS; and
 - the procedure ends.

When not stated otherwise elsewhere, the UE may also initiate the initial direct transfer procedure when another procedure is ongoing, and in that case the state of the latter procedure shall not be affected.

A new signalling connection request may be received from upper layers during transition to idle mode. In those cases, from the time of the indication of release to upper layers until the UE has entered idle mode, any such upper layer request to establish a new signalling connection shall be queued. This request shall be processed after the UE has entered idle mode.

8.1.8.2a Abortion of signalling connection establishment

If the UE receives a request from upper layers to release (abort) the signalling connection for the CN domain for which the initial direct transfer procedure is ongoing, the UE shall:

- if the UE has not yet entered UTRA RRC connected mode:
 - abort the RRC connection establishment procedure as specifiied in subclause 8.1.3;

the procedure ends.

8.1.8.3 Reception of INITIAL DIRECT TRANSFER message by the UTRAN

On reception of the INITIAL DIRECT TRANSFER message the NAS message should be routed using the IE "CN Domain Identity". UTRAN may also use the IE "Intra Domain NAS Node Selector" for routing among the CN nodes for the addressed CN domain.

If no signalling connection exists towards the chosen node, then a signalling connection is established.

If the IE "Measured results on RACH" is present in the message, the UTRAN should extract the contents to be used for radio resource control.

When the UTRAN receives an INITIAL DIRECT TRANSFER message, it shall not affect the state of any other ongoing RRC procedures, when not stated otherwise elsewhere.

8.1.14.2 Initiation

The UE shall, on receiving a request to release (abort) the signalling connection <u>for a specific CN domain</u> from upper layers:

- if a signalling connection in the variable ESTABLISHED SIGNALLING CONNECTIONS for the specific CN domain identified with the IE "CN domain identity" exists:
 - initiate the signalling connection release indication procedure. Note to Hans: indentation changed to B2

- otherwise:

- abort any ongoing establishment of signalling connection for that specific CN domain as specified in 8.1.3.5a.

Upon initiation of the signalling connection release indication procedure in CELL_PCH or URA_PCH state, the UE shall:

- perform a cell update procedure, according to subclause 8.3.1, using the cause "uplink data transmission";
- when the cell update procedure completed successfully:
 - continue with the signalling connection release indication procedure as below.

The UE shall:

- set the IE "CN Domain Identity" to the value indicated by the upper layers. The value of the IE indicates the CN domain whose associated signalling connection the upper layers are indicating to be released;
- remove the signalling connection with the identity indicated by upper layers from the variable ESTABLISHED_SIGNALLING_CONNECTIONS;
- transmit a SIGNALLING CONNECTION RELEASE INDICATION message on DCCH using AM RLC.

When the SIGNALLING CONNECTION RELEASE INDICATION message has been submitted to lower layers for transmission the procedure ends.

3GPP TSG-RAN2 Meeting #27 Orlando, U.S.A, 18-22 February, 2002

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CHANGE REQUEST											
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Reason for change:	Reason for change: The SYSTEM INFORMATION (SIB 11 and SIB 12) and MEASUREMENT CONTROL messages allow to signal to the UE a number of UTRAN or inter-RAT frequencies that is larger than the numbers considered in the current performance specifications.										
Summary of change:	If the variable CELL_INFO_LIST includes a number (M) of UTRAN/inter-RAT frequencies that is larger than the number (N) of UTRAN/inter-RAT frequencies that the UE/MS is required to monitor according to the performance specifications (TS 25.133), the UE/MS shall be required to meet the performance requirements only on the first N (out of M) frequencies, where the frequencies are ordered according to their positions in the variable CELL_INFO_LIST. Note: in the current release of the specification UTRAN should not assign to the UE a number of frequencies that is larger than the number considered in the current release of the UE performance requirements. Isolated Impact Change Analysis.								ormance ncies r. n to the		
Consequences if	It wo affect partic	uld not t imple cular: if the num une	affect in mentation e UE do ber of f xpected	nplemons suppersonants oes not requer performants	entations oporting implem ncies to rmance,	ent the monitor	aving orrectis is C or, that otero	inter-RAT prog like indicated functional R and the UE ne UE may be prabilty shoul se a large nur	d in the lity of t	he CR, it was therwise. It ssigned a I ect to deg maintaine	arge raded or d.
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Other specs affected:	¥	Other core specifications Test specifications O&M Specifications	B	25.331 v3.9.0, CR 1350r1
Other comments:	¥			

How to create CRs using this form:

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

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

[...]

8.6.7.3 Intra-frequency/Inter-frequency/Inter-RAT cell info list

If the IE "Intra-frequency cell info list" is received in System Information Block Type 11, the UE shall update the variable CELL_INFO_LIST accordingly and in the following order. The UE shall:

- if the IE "Removed Intra-frequency cells" is received:
 - ignore the IE.
- if the IE "Remove all intra-frequency cells" is received:
 - ignore the IE.
- if the IE "New Intra-frequency cells" is received, for each cell, and in the same order as the cells appear in the IE:
 - update the variable CELL INFO LIST as follows:
 - if the IE "Intra-frequency cell id" is received:
 - store received cell information at this position in the Intra-frequency cell info list in the variable CELL_INFO_LIST, possibly overwriting any existing information in this position; and
 - mark the position "occupied".
 - if the IE "Intra-frequency cell id" is not received:
 - store the received cell information at the first vacant position in ascending order in the Intra-frequency cell info list in the variable CELL_INFO_LIST; and
 - mark the position as "occupied".
- if the IE "Cells for measurement" is received:
 - ignore the IE.

If the IE "Intra-frequency cell info list" is received in System Information Block Type 12, the UE shall update the variable CELL INFO LIST accordingly and in the following order. The UE shall:

- if the IE "Removed Intra-frequency cells" is received:
 - at the position indicated by the IE "Intra-frequency cell id" clear the cell information stored in the variable CELL_INFO_LIST; and
 - mark the position "vacant".
- if the IE "Remove all intra-frequency cells" is received:
 - for each position referring to an intra frequency cell in the variable CELL_INFO_LIST:
 - mark the position "vacant".
- if the IE "New Intra-frequency cells" is received, for each cell, and in the same order as the cells appear in the IE:
 - update the variable CELL_INFO_LIST as follows:
 - if the IE "Intra-frequency cell id" is received:
 - store received cell information at this position in the Intra-frequency cell info list in the variable CELL_INFO_LIST, possibly overwriting any existing information in this position; and
 - mark the position "occupied".
 - if the IE "Intra-frequency cell id" is not received:

- store the received cell information at the first vacant position in ascending order in the Intra-frequency cell info list in the variable CELL_INFO_LIST; and
- mark the position as "occupied".
- if the IE "Cells for measurement" is received:
 - ignore the IE.

If the IE "Intra-frequency cell info list" is received in a MEASUREMENT CONTROL message, the UE shall update the variable CELL_INFO_LIST accordingly and in the following order. The UE shall:

- if the IE "Removed Intra-frequency cells" is received, at the position indicated by the IE "Intra-frequency cell id":
 - clear the cell information stored in the variable CELL_INFO_LIST; and
 - mark the position "vacant".
- if the IE "Remove all intra-frequency cells" is received:
 - for each position referring to an intra frequency cell in the variable CELL_INFO_LIST:
 - mark the position "vacant".
- if the IE "New Intra-frequency cells" is received, for each cell, and in the same order as the cells appear in the IE:
 - update the variable CELL_INFO_LIST as follows:
 - if the IE "Intra-frequency cell id" is received:
 - store received cell information at this position in the Intra-frequency cell info list in the variable CELL_INFO_LIST, possibly overwriting any existing information in this position; and
 - mark the position "occupied".
 - if the IE "Intra-frequency cell id" is not received:
 - store the received cell information at the first vacant position in ascending order in the Intra-frequency cell info list in the variable CELL_INFO_LIST; and
 - mark the position as "occupied".
- if the IE "Cells for measurement" is received, in the measurement configured by this message only:
 - consider Intra-frequency cells whose cell information is stored at the position indicated by the IE "Intra-frequency cell id" in the variable CELL_INFO_LIST.
- if the IE "Cells for measurement" is not received, in the measurement configured by this message:
 - consider all Intra-frequency cells whose cell information is stored in CELL_INFO_LIST.

If the IE "Inter-frequency cell info list" is received in System Information Block Type 11 update the variable CELL_INFO_LIST accordingly and in the following order. The UE shall:

- if the IE "Removed Inter-frequency cells" is received:
 - ignore the IE.
- if the IE "Remove all inter-frequency cells" is received:
 - ignore the IE.
- if the IE "New Inter-frequency cells" is received, for each cell, and in the same order as the cells appear in the IE:
 - update the variable CELL_INFO_LIST as follows:

- if the IE "Inter-frequency cell id" is received:
 - store received cell information at this position in the Inter-frequency cell info list in the variable CELL_INFO_LIST, possibly overwriting any existing information in this position; and
 - mark the position "occupied".
- if the IE "Inter-frequency cell id" is not received:
 - store the received cell information at the first vacant position in ascending order in the Inter-frequency cell info list in the variable CELL_INFO_LIST; and
 - mark the position as "occupied".
- if the IE "Cells for measurement" is received:
 - ignore the IE.

If the IE "Inter-frequency cell info list" is received in System Information Block Type 12, the UE shall update the variable CELL_INFO_LIST accordingly and in the following order. The UE shall:

- if the IE "Removed Inter-frequency cells" is received, at the position indicated by the IE "Inter-frequency cell id":
 - clear the cell information stored in the variable CELL_INFO_LIST; and
 - mark the position "vacant".
- if the IE "Remove all inter-frequency cells" is received:
 - for each position referring to an inter-frequency cell in the variable CELL_INFO_LIST:
 - clear the cell information stored in the variable CELL_INFO_LIST; and
 - mark the position "vacant".
- if the IE "New Inter-frequency cells" is received, for each cell, and in the same order as the cells appear in the IE:
 - update the variable CELL_INFO_LIST as follows:
 - if the IE "Inter-frequency cell id" is received:
 - store received cell information at this position in the Inter-frequency cell info list in the variable CELL_INFO_LIST, possibly overwriting any existing information in this position; and
 - mark the position "occupied".
 - if the IE "Inter-frequency cell id" is not received:
 - store the received cell information at the first vacant position in ascending order in the Inter-frequency cell info list in the variable CELL_INFO_LIST; and
 - mark the position as "occupied".
- if the IE "Cells for measurement" is received:
 - ignore the IE.

If the IE "Inter-frequency cell info list" is received in a MEASUREMENT CONTROL message, the UE shall update the variable CELL_INFO_LIST accordingly and in the following order:

- if the IE "Removed Inter-frequency cells" is received, at the position indicated by the IE "Inter-frequency cell id":
 - clear the cell information stored in the variable CELL_INFO_LIST; and
 - mark the position "vacant".

- if the IE "Remove all inter-frequency cells" is received:
 - for each position referring to an inter-frequency cell in the variable CELL_INFO_LIST:
 - clear the cell information stored in the variable CELL INFO LIST; and
 - mark the position "vacant".
- if the IE "New Inter-frequency cells" is received, for each cell, and in the same order as the cells appear in the IE:
 - update the variable CELL_INFO_LIST as follows:
 - if the IE "Inter-frequency cell id" is received:
 - store received cell information at this position in the Inter-frequency cell info list in the variable CELL_INFO_LIST, possibly overwriting any existing information in this position; and
 - mark the position "occupied".
 - if the IE "Inter-frequency cell id" is not received:
 - store the received cell information at the first vacant position in ascending order in the Inter-frequency cell info list in the variable CELL_INFO_LIST; and
 - mark the position as "occupied".
- if the IE "Cells for measurement" is received, in the measurement configured by this message only:
 - consider Inter-frequency cells whose cell information is stored at the position indicated by the IE "Inter-frequency cell id" in the variable CELL_INFO_LIST.
- if the IE "Cells for measurement" is not received, in the measurement configured by this message:
 - consider all Inter-frequency cells whose cell information is stored in CELL_INFO_LIST.

If the IE "Inter-RAT cell info list" is received in System Information Block Type 11, the UE shall update the variable CELL_INFO_LIST accordingly and in the following order. The UE shall:

- if the IE "Removed Inter-RAT cells" is received:
 - ignore the IE.
- if the IE "Remove all inter-RAT cells" is received:
 - ignore the IE.
- if the IE "New Inter-RAT cells" is received, for each cell, and in the same order as the cells appear in the IE:
 - if the IE "Radio Access Technology" is set to "None":
 - ignore the cell.
 - otherwise:
 - update the variable CELL_INFO_LIST as follows:
 - if the IE "Inter-RAT cell id" is received:
 - store received cell information at this position in the Inter-RAT cell info list in the variable CELL_INFO_LIST, possibly overwriting any existing information in this position; and
 - mark the position "occupied".
 - if the IE "Inter-RAT cell id" is not received:
 - store the received cell information at the first vacant position in ascending order in the Inter-RAT cell info list in the variable CELL_INFO_LIST; and

- mark the position as "occupied".
- if the IE "Cells for measurement" is received:
 - ignore the IE.

If the IE "Inter-RAT cell info list" is received in System Information Block Type 12, the UE shall update the variable CELL_INFO_LIST accordingly and in the following order. The UE shall:

- if the IE "Removed Inter-RAT cells" is received, at the position indicated by the IE "Inter-RAT cell id":
 - clear the cell information stored in the variable CELL_INFO_LIST; and
 - mark the position "vacant".
- if the IE "Remove all inter-RAT cells" is received:
 - for each position referring to an inter-RAT cell in the variable CELL_INFO_LIST:
 - clear the cell information stored in the variable CELL_INFO_LIST; and
 - mark the position "vacant".
- if the IE "New Inter-RAT cells" is received, for each cell, and in the same order as the cells appear in the IE:
 - if the IE "Radio Access Technology" is set to "None":
 - ignore the cell.
 - otherwise:
 - update the variable CELL_INFO_LIST as follows:
 - if the IE "Inter-RAT cell id" is received:
 - store received cell information at this position in the Inter-RAT cell info list in the variable CELL_INFO_LIST, possibly overwriting any existing information in this position; and
 - mark the position "occupied".
 - if the IE "Inter-RAT cell id" is not received:
 - store the received cell information at the first vacant position in ascending order in the Inter-RAT cell info list in the variable CELL_INFO_LIST; and
 - mark the position as "occupied".
- if the IE "Cells for measurement" is received:
 - ignore the IE.

If the IE "Inter-RAT cell info list" is received in a MEASUREMENT CONTROL message, the UE shall update the variable CELL_INFO_LIST accordingly and in the following order. The UE shall:

- if the IE "Removed Inter-RAT cells" is received, at the position indicated by the IE "Inter-RAT cell id":
 - clear the cell information stored in the variable CELL_INFO_LIST; and
 - mark the position "vacant".
- if the IE "Remove all inter-RAT cells" is received:
 - for each position referring to an inter-RAT cell in the variable CELL_INFO_LIST:
 - clear the cell information stored in the variable CELL_INFO_LIST; and
 - mark the position "vacant".
- if the IE "New Inter-RAT cells" is received, for each cell, and in the same order as the cells appear in the IE:

- if the IE "Radio Access Technology" is set to "None":
 - ignore the cell.
- otherwise:
 - update the variable CELL_INFO_LIST as follows:
 - if the IE "Inter-RAT cell id" is received:
 - store received cell information at this position in the Inter-RAT cell info list in the variable CELL_INFO_LIST, possibly overwriting any existing information in this position; and
 - mark the position "occupied".
 - if the IE "Inter-RAT cell id" is not received:
 - store the received cell information at the first vacant position in ascending order in the Inter-RAT cell info list in the variable CELL_INFO_LIST; and
 - mark the position as "occupied".
- if the IE "Cells for measurement" is received, in the measurement configured by this message only:
 - consider Inter-RAT cells whose cell information is stored at the position indicated by the IE "Inter-RAT cell id" in the variable CELL INFO LIST.
- if the IE "Cells for measurement" is not received, in the measurement configured by this message:
 - consider all Inter-RAT cells whose cell information is stored in CELL_INFO_LIST.
- if the IE "Cell selection and re-selection info for SIB11/12" is present:
 - ignore the IE.

[...]

8.6.7.14 Inter-frequency measurement

If the Inter-frequency cell info list, included in the variable CELL_INFO_LIST, includes a number (M) of frequencies that is larger than the number (N) considered in a UE performance requirement defined in [19] and [20]:

- the UE shall meet this performance requirement on the first relevant (N) frequencies, according to the order defined by the position of the frequencies in the Inter-frequency cell info list, included in the variable CELL_INFO_LIST
- the UE may ignore the remaining (M-N) frequencies.

If IE "Inter-frequency measurement" is received by the UE in a MEASUREMENT CONTROL message, where IE "measurement command" has the value "setup", but IE "Inter-frequency measurement quantity", IE "Inter-frequency reporting quantity" or "CHOICE Report criteria" is not received, the UE shall:

- clear all stored measurement control information related associated to this measurement identity in variable MEASUREMENT_IDENTITY;
- set the variable CONFIGURATION_INCOMPLETE to TRUE;
- in the case of an inter-frequency measurement for FDD:
 - if IE "Inter-frequency measurement" is received by the UE in a MEASUREMENT CONTROL message, where IE "measurement command" has the value "setup", if an inter-frequency event is configured that is different from event 2d or 2f, and if the IE "Inter-frequency SET UPDATE" is not received in that same message:
 - set the variable CONFIGURATION_INCOMPLETE to TRUE.
 - if the IE "Inter-frequency SET UPDATE" is received:

- if the value of the IE "UE autonomous update mode" set to "Off" or "On":
 - if more than one frequency is included in the list of cells pointed at in the IE "cells for measurement" if also included in the same IE "Inter-frequency measurement", or otherwise included in the "Inter-frequency cell info" part of the variable CELL_INFO_LIST:
 - set the variable INVALID_CONFIGURATION to TRUE.

If the variable CONFIGURATION_INCOMPLETE is set to TRUE, the UE shall:

- act as described in subclause 8.4.1.4a.

8.6.7.15 Inter-RAT measurement

If the Inter-RAT cell info list, included in the variable CELL INFO LIST, includes a number (M) of frequencies that is larger than the number (N) considered in a UE performance requirement defined in [19] and [20]:

- the UE shall meet this performance requirement on the first relevant (N) frequencies, according to the order defined by the position of the frequencies in the Inter-RAT cell info list, included in the variable CELL_INFO_LIST
- the UE may ignore the remaining (M-N) frequencies.

If IE "Inter-RAT measurement" is received by the UE in a MEASUREMENT CONTROL message, where IE "measurement command" has the value "setup", but IE "Inter-RAT measurement quantity", IE "Inter-RAT reporting quantity" or "CHOICE Report criteria" is not received, the UE shall:

- clear all stored measurement control information related associated to this measurement identity in variable MEASUREMENT_IDENTITY;
- set the variable CONFIGURATION INCOMPLETE to TRUE.

[...]

Oriando, U.S.A, 16-22 February, 2002										
		C	HANG	E REC	UEST	Г		CR-Form-v5		
ж	<mark>25.331</mark>	CR 1	350	≋ rev	r1 [#]	Current version	3.9.0	¥		
For <u>HELP</u> on us	For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the ૠ symbols.									
Proposed change a	ffects:	(U)SI	M N	ME/UE X	Radio A	ccess Network	Core Ne	etwork		
Title: 第	Number	of UTRAI	N and inte	r-RAT frequ	uencies					
Source: #	TSG-RAI	N WG2								
Work item code: ₩	TEI					Date: ₩ 2	22 Feb. 2002	2		
Category: # F 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: # R99 Use one of the following release 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)										
								-		
Reason for change:	Reason for change: # The SYSTEM INFORMATION (SIB 11 and SIB 12) and MEASUREMENT CONTROL messages allow to signal to the UE a number of UTRAN or inter-RAT frequencies that is larger than the numbers considered in the current performance specifications.									
Summary of change: If the variable CELL_INFO_LIST includes a number (M) of UTRAN/inter-RAT frequencies that is larger than the number (N) of UTRAN/inter-RAT frequence that the UE/MS is required to monitor according to the performance specifications (TS 25.133), the UE/MS shall be required to meet the performance requirements only on the first N (out of M) frequencies, where the frequencies are ordered according to their positions in the variable CELL_INFO_LIST. Note: in the current release of the specification UTRAN should not assign to UE a number of frequencies that is larger than the number considered in the current release of the UE performance requirements. Isolated Impact Change Analysis. This change affects the inter-frequency and inter-RAT procedures. It would not affect implementations behaving like indicated in the CR, it would affect implementations supporting the corrected functionality otherwise. In							uencies formance encies T. In to the h the			
Consequences if not approved:	particular: • if the UE does not implement this CR and the UE is assigned a large number of frequencies to monitor, the UE may be subject to degraded unexpected performance, but interoprability should be maintained. # Degraded or unexpected performance in case a large number of frequencies is signalled to the UE.									
		Future changes to the UE performance requirements would require the definition of new System Information Blocks in order to maintain backward compatibility.								

Clauses affected: # 8.6.7.14, 8.6.7.15

Other specs affected:	¥	Other core specifications # Test specifications O&M Specifications	25.331 v4.3.0, CR 1351
Other comments:	¥		

How to create CRs using this form:

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

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

[...]

8.6.7.3 Intra-frequency/Inter-frequency/Inter-RAT cell info list

If the IE "Intra-frequency cell info list" is received in System Information Block Type 11, the UE shall update the variable CELL_INFO_LIST accordingly and in the following order. The UE shall:

- if the IE "Removed Intra-frequency cells" is received:
 - ignore the IE.
- if the IE "Remove all intra-frequency cells" is received:
 - ignore the IE.
- if the IE "New Intra-frequency cells" is received, for each cell, and in the same order as the cells appear in the IE:
 - update the variable CELL INFO LIST as follows:
 - if the IE "Intra-frequency cell id" is received:
 - store received cell information at this position in the Intra-frequency cell info list in the variable CELL_INFO_LIST, possibly overwriting any existing information in this position; and
 - mark the position "occupied".
 - if the IE "Intra-frequency cell id" is not received:
 - store the received cell information at the first vacant position in ascending order in the Intra-frequency cell info list in the variable CELL_INFO_LIST; and
 - mark the position as "occupied".
- if the IE "Cells for measurement" is received:
 - ignore the IE.

If the IE "Intra-frequency cell info list" is received in System Information Block Type 12, the UE shall update the variable CELL INFO LIST accordingly and in the following order. The UE shall:

- if the IE "Removed Intra-frequency cells" is received:
 - at the position indicated by the IE "Intra-frequency cell id" clear the cell information stored in the variable CELL_INFO_LIST; and
 - mark the position "vacant".
- if the IE "Remove all intra-frequency cells" is received:
 - for each position referring to an intra frequency cell in the variable CELL_INFO_LIST:
 - mark the position "vacant".
- if the IE "New Intra-frequency cells" is received, for each cell, and in the same order as the cells appear in the IE:
 - update the variable CELL_INFO_LIST as follows:
 - if the IE "Intra-frequency cell id" is received:
 - store received cell information at this position in the Intra-frequency cell info list in the variable CELL_INFO_LIST, possibly overwriting any existing information in this position; and
 - mark the position "occupied".
 - if the IE "Intra-frequency cell id" is not received:

- store the received cell information at the first vacant position in ascending order in the Intra-frequency cell info list in the variable CELL_INFO_LIST; and
- mark the position as "occupied".
- if the IE "Cells for measurement" is received:
 - ignore the IE.

If the IE "Intra-frequency cell info list" is received in a MEASUREMENT CONTROL message, the UE shall update the variable CELL_INFO_LIST accordingly and in the following order. The UE shall:

- if the IE "Removed Intra-frequency cells" is received, at the position indicated by the IE "Intra-frequency cell id":
 - clear the cell information stored in the variable CELL_INFO_LIST; and
 - mark the position "vacant".
- if the IE "Remove all intra-frequency cells" is received:
 - for each position referring to an intra frequency cell in the variable CELL_INFO_LIST:
 - mark the position "vacant".
- if the IE "New Intra-frequency cells" is received, for each cell, and in the same order as the cells appear in the IE:
 - update the variable CELL_INFO_LIST as follows:
 - if the IE "Intra-frequency cell id" is received:
 - store received cell information at this position in the Intra-frequency cell info list in the variable CELL_INFO_LIST, possibly overwriting any existing information in this position; and
 - mark the position "occupied".
 - if the IE "Intra-frequency cell id" is not received:
 - store the received cell information at the first vacant position in ascending order in the Intra-frequency cell info list in the variable CELL_INFO_LIST; and
 - mark the position as "occupied".
- if the IE "Cells for measurement" is received, in the measurement configured by this message only:
 - consider Intra-frequency cells whose cell information is stored at the position indicated by the IE "Intra-frequency cell id" in the variable CELL_INFO_LIST.
- if the IE "Cells for measurement" is not received, in the measurement configured by this message:
 - consider all Intra-frequency cells whose cell information is stored in CELL_INFO_LIST.

If the IE "Inter-frequency cell info list" is received in System Information Block Type 11 update the variable CELL_INFO_LIST accordingly and in the following order. The UE shall:

- if the IE "Removed Inter-frequency cells" is received:
 - ignore the IE.
- if the IE "Remove all inter-frequency cells" is received:
 - ignore the IE.
- if the IE "New Inter-frequency cells" is received, for each cell, and in the same order as the cells appear in the IE:
 - update the variable CELL_INFO_LIST as follows:

- if the IE "Inter-frequency cell id" is received:
 - store received cell information at this position in the Inter-frequency cell info list in the variable CELL_INFO_LIST, possibly overwriting any existing information in this position; and
 - mark the position "occupied".
- if the IE "Inter-frequency cell id" is not received:
 - store the received cell information at the first vacant position in ascending order in the Inter-frequency cell info list in the variable CELL_INFO_LIST; and
 - mark the position as "occupied".
- if the IE "Cells for measurement" is received:
 - ignore the IE.

If the IE "Inter-frequency cell info list" is received in System Information Block Type 12, the UE shall update the variable CELL_INFO_LIST accordingly and in the following order. The UE shall:

- if the IE "Removed Inter-frequency cells" is received, at the position indicated by the IE "Inter-frequency cell id":
 - clear the cell information stored in the variable CELL_INFO_LIST; and
 - mark the position "vacant".
- if the IE "Remove all inter-frequency cells" is received:
 - for each position referring to an inter-frequency cell in the variable CELL_INFO_LIST:
 - clear the cell information stored in the variable CELL_INFO_LIST; and
 - mark the position "vacant".
- if the IE "New Inter-frequency cells" is received, for each cell, and in the same order as the cells appear in the IE:
 - update the variable CELL_INFO_LIST as follows:
 - if the IE "Inter-frequency cell id" is received:
 - store received cell information at this position in the Inter-frequency cell info list in the variable CELL_INFO_LIST, possibly overwriting any existing information in this position; and
 - mark the position "occupied".
 - if the IE "Inter-frequency cell id" is not received:
 - store the received cell information at the first vacant position in ascending order in the Inter-frequency cell info list in the variable CELL_INFO_LIST; and
 - mark the position as "occupied".
- if the IE "Cells for measurement" is received:
 - ignore the IE.

If the IE "Inter-frequency cell info list" is received in a MEASUREMENT CONTROL message, the UE shall update the variable CELL_INFO_LIST accordingly and in the following order:

- if the IE "Removed Inter-frequency cells" is received, at the position indicated by the IE "Inter-frequency cell id":
 - clear the cell information stored in the variable CELL_INFO_LIST; and
 - mark the position "vacant".

- if the IE "Remove all inter-frequency cells" is received:
 - for each position referring to an inter-frequency cell in the variable CELL_INFO_LIST:
 - clear the cell information stored in the variable CELL INFO LIST; and
 - mark the position "vacant".
- if the IE "New Inter-frequency cells" is received, for each cell, and in the same order as the cells appear in the IE:
 - update the variable CELL_INFO_LIST as follows:
 - if the IE "Inter-frequency cell id" is received:
 - store received cell information at this position in the Inter-frequency cell info list in the variable CELL_INFO_LIST, possibly overwriting any existing information in this position; and
 - mark the position "occupied".
 - if the IE "Inter-frequency cell id" is not received:
 - store the received cell information at the first vacant position in ascending order in the Inter-frequency cell info list in the variable CELL_INFO_LIST; and
 - mark the position as "occupied".
- if the IE "Cells for measurement" is received, in the measurement configured by this message only:
 - consider Inter-frequency cells whose cell information is stored at the position indicated by the IE "Inter-frequency cell id" in the variable CELL_INFO_LIST.
- if the IE "Cells for measurement" is not received, in the measurement configured by this message:
 - consider all Inter-frequency cells whose cell information is stored in CELL_INFO_LIST.

If the IE "Inter-RAT cell info list" is received in System Information Block Type 11, the UE shall update the variable CELL_INFO_LIST accordingly and in the following order. The UE shall:

- if the IE "Removed Inter-RAT cells" is received:
 - ignore the IE.
- if the IE "Remove all inter-RAT cells" is received:
 - ignore the IE.
- if the IE "New Inter-RAT cells" is received, for each cell, and in the same order as the cells appear in the IE:
 - if the IE "Radio Access Technology" is set to "None":
 - ignore the cell.
 - otherwise:
 - update the variable CELL_INFO_LIST as follows:
 - if the IE "Inter-RAT cell id" is received:
 - store received cell information at this position in the Inter-RAT cell info list in the variable CELL_INFO_LIST, possibly overwriting any existing information in this position; and
 - mark the position "occupied".
 - if the IE "Inter-RAT cell id" is not received:
 - store the received cell information at the first vacant position in ascending order in the Inter-RAT cell info list in the variable CELL_INFO_LIST; and

- mark the position as "occupied".
- if the IE "Cells for measurement" is received:
 - ignore the IE.

If the IE "Inter-RAT cell info list" is received in System Information Block Type 12, the UE shall update the variable CELL_INFO_LIST accordingly and in the following order. The UE shall:

- if the IE "Removed Inter-RAT cells" is received, at the position indicated by the IE "Inter-RAT cell id":
 - clear the cell information stored in the variable CELL_INFO_LIST; and
 - mark the position "vacant".
- if the IE "Remove all inter-RAT cells" is received:
 - for each position referring to an inter-RAT cell in the variable CELL_INFO_LIST:
 - clear the cell information stored in the variable CELL_INFO_LIST; and
 - mark the position "vacant".
- if the IE "New Inter-RAT cells" is received, for each cell, and in the same order as the cells appear in the IE:
 - if the IE "Radio Access Technology" is set to "None":
 - ignore the cell.
 - otherwise:
 - update the variable CELL_INFO_LIST as follows:
 - if the IE "Inter-RAT cell id" is received:
 - store received cell information at this position in the Inter-RAT cell info list in the variable CELL_INFO_LIST, possibly overwriting any existing information in this position; and
 - mark the position "occupied".
 - if the IE "Inter-RAT cell id" is not received:
 - store the received cell information at the first vacant position in ascending order in the Inter-RAT cell info list in the variable CELL_INFO_LIST; and
 - mark the position as "occupied".
- if the IE "Cells for measurement" is received:
 - ignore the IE.

If the IE "Inter-RAT cell info list" is received in a MEASUREMENT CONTROL message, the UE shall update the variable CELL_INFO_LIST accordingly and in the following order. The UE shall:

- if the IE "Removed Inter-RAT cells" is received, at the position indicated by the IE "Inter-RAT cell id":
 - clear the cell information stored in the variable CELL_INFO_LIST; and
 - mark the position "vacant".
- if the IE "Remove all inter-RAT cells" is received:
 - for each position referring to an inter-RAT cell in the variable CELL_INFO_LIST:
 - clear the cell information stored in the variable CELL_INFO_LIST; and
 - mark the position "vacant".
- if the IE "New Inter-RAT cells" is received, for each cell, and in the same order as the cells appear in the IE:

- if the IE "Radio Access Technology" is set to "None":
 - ignore the cell.
- otherwise:
 - update the variable CELL_INFO_LIST as follows:
 - if the IE "Inter-RAT cell id" is received:
 - store received cell information at this position in the Inter-RAT cell info list in the variable CELL_INFO_LIST, possibly overwriting any existing information in this position; and
 - mark the position "occupied".
 - if the IE "Inter-RAT cell id" is not received:
 - store the received cell information at the first vacant position in ascending order in the Inter-RAT cell info list in the variable CELL_INFO_LIST; and
 - mark the position as "occupied".
- if the IE "Cells for measurement" is received, in the measurement configured by this message only:
 - consider Inter-RAT cells whose cell information is stored at the position indicated by the IE "Inter-RAT cell id" in the variable CELL INFO LIST.
- if the IE "Cells for measurement" is not received, in the measurement configured by this message:
 - consider all Inter-RAT cells whose cell information is stored in CELL_INFO_LIST.
- if the IE "Cell selection and re-selection info for SIB11/12" is present:
 - ignore the IE.

[...]

8.6.7.14 Inter-frequency measurement

If the Inter-frequency cell info list, included in the variable CELL_INFO_LIST, includes a number (M) of frequencies that is larger than the number (N) considered in a UE performance requirement defined in [19] and [20]:

- the UE shall meet this performance requirement on the first relevant (N) frequencies, according to the order defined by the position of the frequencies in the Inter-frequency cell info list, included in the variable CELL_INFO_LIST
- the UE may ignore the remaining (M-N) frequencies.

If IE "Inter-frequency measurement" is received by the UE in a MEASUREMENT CONTROL message, where IE "measurement command" has the value "setup", but IE "Inter-frequency measurement quantity", IE "Inter-frequency reporting quantity" or "CHOICE Report criteria" is not received, the UE shall:

- clear all stored measurement control information related associated to this measurement identity in variable MEASUREMENT_IDENTITY;
- set the variable CONFIGURATION_INCOMPLETE to TRUE;
- in the case of an inter-frequency measurement for FDD:
 - if IE "Inter-frequency measurement" is received by the UE in a MEASUREMENT CONTROL message, where IE "measurement command" has the value "setup", if an inter-frequency event is configured that is different from event 2d or 2f, and if the IE "Inter-frequency SET UPDATE" is not received in that same message:
 - set the variable CONFIGURATION_INCOMPLETE to TRUE.
 - if the IE "Inter-frequency SET UPDATE" is received:

- if the value of the IE "UE autonomous update mode" set to "Off" or "On":
 - if more than one frequency is included in the list of cells pointed at in the IE "cells for measurement" if also included in the same IE "Inter-frequency measurement", or otherwise included in the "Inter-frequency cell info" part of the variable CELL_INFO_LIST:
 - set the variable INVALID_CONFIGURATION to TRUE.

If the variable CONFIGURATION_INCOMPLETE is set to TRUE, the UE shall:

- act as described in subclause 8.4.1.4a.

8.6.7.15 Inter-RAT measurement

If the Inter-RAT cell info list, included in the variable CELL INFO LIST, includes a number (M) of frequencies that is larger than the number (N) considered in a UE performance requirement defined in [19] and [20]:

- the UE shall meet this performance requirement on the first relevant (N) frequencies, according to the order defined by the position of the frequencies in the Inter-RAT cell info list, included in the variable CELL_INFO_LIST
- the UE may ignore the remaining (M-N) frequencies.

If IE "Inter-RAT measurement" is received by the UE in a MEASUREMENT CONTROL message, where IE "measurement command" has the value "setup", but IE "Inter-RAT measurement quantity", IE "Inter-RAT reporting quantity" or "CHOICE Report criteria" is not received, the UE shall:

- clear all stored measurement control information related associated to this measurement identity in variable MEASUREMENT_IDENTITY;
- set the variable CONFIGURATION INCOMPLETE to TRUE.

[...]

3GPP TSG-RAN WG2 Meeting #27 Orlando, USA, February 18th – 22nd, 2002

CHANGE REQUEST												
[#] 25	.331		CR 13	849	жr	ev	- #	Cur	rent vers	sion:	4.3.0	ж
For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the % symbols.												
Proposed change affects:												
Title: ** Corrections to support combined Cell/URA update and SRNS relocation procedure												
Source: # TSG-RAN WG2												
Work item code:	₩ TEI								Date: ℜ	Fel	bruary 20	02
Category:	Deta	F (corr A (corr B (add C (fund D (edit iled exp	the following rection) responds to lition of feactional modifications of the litions of the liti	o a corr ture), dification ication) of the a	ection in a	e)		U	lease: # se <u>one</u> of 2 R96 R97 R98 R99 REL-4 REL-5	the for (GSN) (Rele (Rele (Rele (Rele (Rele	L-4 ollowing rel M Phase 2) ease 1996) ease 1997) ease 1999) ease 4) ease 5)	
Reason for change: To support combined Cell/URA update and SRNS relocation, the Source RNC should transfer the VT(US) of the SRB#1 to the Target RNC. the CELL/URA UPDATE CONFIRM or UTRAN MOBILITY INFORMATIC should be transmitted on DCCH using UM RLC (SRB#1). the first UMD PDU should include "Use Special LI". the IE "RLC re establish indicator (RB2, RB3 and RB4)" should not be included in the CELL UPDATE CONFIRM message.							RMATION					
Summary of change: # 1. VT(US) is added in the "RRC information container" for SRB#1 2. In case of SRNS relocation, the CELL/URA UPDATE CONFIRM or UTRA MOBILITY INFORMATION is made to be sent on SRB#1 only. 3. "Use Special LI" can be used for the DL DCCH case. 4. The useless IE "RLC re establish indicator (RB2, RB3 and RB4)" is removed in CELL/URA UPDATE CONFIRM message. **Note*/ 1. UE should be able to receive "Special LI" on DL DCCH also. 2. This CR has only impacts on Source and Target RNC.							UTRAN					
Isolated Impact Analysis: Proposed change has an isolated impact. Affected functional is SRNS relocation. Would not affect implementations behaving like indicated in the Cowould affect implementations supporting the corrected functionality otherwise. The changes for Rev 1 are highlighted. The changes for Rev 2 are colored green. Rev 3: 3100 is changed back to 3a0 in ASN.1												
Consequences if not approved:	æ	Failure	of combir	ned Cel	l/URA upo	date aı	nd SRNS	S reloc	ation pro	cedure	e.	

Clauses affected:	8 6.3, 8.3.1.5, 8.3.3.2, 11.5, 14.12.4.2
Other specs affected:	# Other core specifications # 25.331 v3.9.0, CR 1348r3 Test specifications O&M Specifications
Other comments:	#

How to create CRs using this form:

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

- 1) Fill out the above form. The symbols above marked # contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://www.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

6.3 Signalling Radio Bearers

The Radio Bearers (RB) available for transmission of RRC messages are defined as "signalling radio bearers" and are specified in the following. The UE and UTRAN shall select the signalling radio bearers for RRC messages using RLC-TM, RLC-UM or RLC-AM on the DCCH and CCCH, according to the following:

- Signalling radio bearer RB0 shall be used for all messages sent on the CCCH (UL: RLC-TM, DL: RLC-UM).
- Signalling radio bearer RB1 shall be used for all messages sent on the DCCH, when using RLC unacknowledged mode (RLC-UM).
- Signalling radio bearer RB2 shall be used for all messages sent on the DCCH, when using RLC acknowledged mode (RLC-AM), except for the RRC messages carrying higher layer (NAS) signalling.
- Signalling radio bearer RB3 and optionally Signalling radio bearer RB4 shall be used for the RRC messages carrying higher layer (NAS) signalling and sent on the DCCH in RLC acknowledged mode (RLC-AM), as specified in subclauses 8.1.8., 8.1.9 and 8.1.10.
- RRC messages on the SHCCH are mapped either on RACH or on the USCH in the uplink using TM and either on FACH or on the DSCH using RLC-UM. These messages are only specified for TDD mode.

The Radio Bearer configuration for signalling radio bearer RB0, SHCCH, BCCH on FACH and PCCH on PCH are specified in subclauses 13.6, 13.6a, 13.6b and 13.6c.

When an RRC message is transmitted in DL on <u>DCCH</u> (in case of <u>SRNS</u> relocation) or <u>CCCH</u> or SHCCH using RLC UM, RRC should indicate to RLC that a special RLC length indicator should be used [16]. The UE shall assume that this indication has been given. The special length indicator indicates that an RLC SDU begins in the beginning of an RLC PDU.

8.3 RRC connection mobility procedures

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, it may either the UTRAN should:

- in case the procedure was triggered by reception of a CELL UPDATE:
 - if SRNS relocation was performed:
 - transmit a CELL UPDATE CONFIRM message on the downlink DCCH;

- otherwise:

- 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"; /* Note to Hans; the indent was changed to B3 */
- 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": /* Note to Hans: the indent was changed to B3 */

- set the 20 MSB of the MAC-d HFN with the corresponding START value in the IE "START list"; /* Note to Hans; the indent was changed to B4 */
- set the remaining LSB of the MAC-d HFN to zero. ** Note to Hans; the indent was changed to B4 */
- transmit a CELL UPDATE CONFIRM message on the downlink DCCH or optionally on the CCCH but only if ciphering is not required; and /* Note to Hans; the indent was changed to B3 */
- optionally include the IE "RLC re-establish indicator (RB5 and upwards)" to request a
 RLC re-establishment in the UE, in which case the corresponding RLC entities should
 also be re-established in UTRAN; or /* Note to Hans; the indent was changed to B3 */
- in case the procedure was triggered by reception of a URA UPDATE:
 - if SRNS relocation was performed:
 - transmit a URA UPDATE CONFIRM message on the downlink DCCH;
 - otherwise:
 - transmit a URA UPDATE CONFIRM message on the downlink CCCH or DCCH;
 - transmit a URA UPDATE CONFIRM message to the lower layers for transmission on the downlink CCCH or DCCH in which case the UTRAN should include the IE "URA identity" in the URA UPDATE CONFIRM message in a cell where multiple URA identifiers are broadcast; or
- 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:
 - if the CELL UPDATE message was sent because of an unrecoverable error in RB2, RB3 or RB4:
 - initiate an RRC connection release procedure (subclause 8.1.4) by transmitting an RRC CONNECTION RELEASE message on the downlink CCCH.

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 shall:

- stop timer T302;
- in case of a cell update procedure and the CELL UPDATE CONFIRM message:
 - includes "RB information elements"; and/or
 - includes "Transport channel information elements"; and/or
 - includes "Physical channel information elements"; and
 - if the variable ORDERED_RECONFIGURATION is set to FALSE:
 - set the variable ORDERED_RECONFIGURATION to TRUE;
- act upon all received information elements as specified in subclause 8.6, unless specified otherwise in the following:

- if the IE "Frequency info" is included in the message:
 - if the IE "RRC State Indicator" is set to the value "CELL_FACH" or "CELL_PCH" or URA_PCH":
 - select a suitable UTRA cell according to [4] on that frequency;
 - act as specified in subclause 8.3.1.12.
 - if the IE "RRC State Indicator" is set to the value "CELL_DCH":
 - act on the IE "Frequency info" as specified in subclause 8.6.6.1.
- use the transport channel(s) applicable for the physical channel types that is used; and
- if the IE "TFS" is neither included nor previously stored in the UE for that transport channel(s):
 - use the TFS given in system information.
- if none of the TFS stored is compatible with the physical channel:
 - delete the stored TFS;
 - use the TFS given in system information.
- perform the physical layer synchronisation procedure as specified in [29];
- if the CELL UPDATE CONFIRM message includes the IE "RLC re-establish indicator (RB2, RB3 and RB4)":
 - re-establish the RLC entities for signalling radio bearer RB2, signalling radio bearer RB3 and signalling radio bearer RB4 (if established);
 - 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":
 - set the HFN 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;
- if the CELL UPDATE CONFIRM message includes the IE "RLC re-establish indicator (RB5 and upwards)":
 - for radio bearers with RB identity 5 and upwards:
 - re-establish the AM RLC entities;
 - 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":
 - set the HFN 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;
- enter a state according to subclause 8.6.3.3 applied on the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message.

8.3.3 UTRAN mobility information

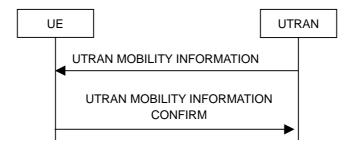


Figure 8.3.3-1: UTRAN mobility information procedure, normal flow

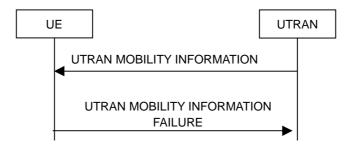


Figure 8.3.3-2: UTRAN mobility information procedure, failure case

8.3.3.1 General

The purpose of this procedure is to allocate any one or a combination of the following to a UE in connected mode:

- a new C-RNTI;
- a new U-RNTI;
- other mobility related information.

8.3.3.2 Initiation

To initiate the procedure UTRAN transmits a UTRAN MOBILITY INFORMATION message to the UE on the downlink DCCH using AM or UM RLC. In case of SRNS relocation, the message is sent using UM RLC only.

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	
UE Information Elements			Туре	
U-RNTI	CV-CCCH		U-RNTI	
			10.3.3.47	
RRC transaction identifier	MP		RRC transaction	
			identifier	
	011		10.3.3.36	
Integrity check info	СН		Integrity check info	
			10.3.3.16	
Integrity protection mode info	OP		Integrity	
			protection mode info	
			10.3.3.19	
Ciphering mode info	OP		Ciphering	
			mode info 10.3.3.5	
Activation time	MD		Activation	Default value is "now"
New II DNT	OD		time 10.3.3.1	
New U-RNTI	OP		U-RNTI 10.3.3.47	
New C-RNTI	OP		C-RNTI	
RRC State Indicator	MP		10.3.3.8 RRC State	
RRC State indicator	IMP		Indicator	
			10.3.3.10	
UTRAN DRX cycle length coefficient	MD		UTRAN DRX	Default value is the existing
Coefficient			cycle length coefficient	DRX cycle length coefficient
			10.3.3.49	
RLC re-establish indicator (RB2, RB3 and RB4)	<mark>MP</mark>		RLC re- establish	
KD3 aliu KD4)			indicator	
			10.3.3.3 <mark>5</mark>	
RLC re-establish indicator (RB5 and upwards)	MP		RLC re- establish	
and upwards)			indicator	
			10.3.3.35	
CN Information Elements CN Information info	OP		CN	
CIV IIIOIIIation IIIO			Information	
			info 10.3.1.3	
UTRAN Information Elements URA identity	OP		URA identity	
•			10.3.2.6	
RB information elements	OD	4 45		
RB information to release list	OP	1 to <maxrb></maxrb>		
>RB information to release	MP		RB	
			information	
			to release 10.3.4.19	
RB information to reconfigure list	OP	1 to		
>RB information to reconfigure	MP	<maxrb></maxrb>	RB	
/ / Information to reconligure	IVII		information	
			to	
			reconfigure 10.3.4.18	
RB information to be affected list	OP	1 to	70.0. 7.10	
DD informs (i.e., t. 1	MD	<maxrb></maxrb>	DD	
>RB information to be affected	MP		RB	

Information Element/Group name	Need	Multi	Type and reference	Semantics description
			information to be affected 10.3.4.17	
Downlink counter	OP			
synchronisation info >RB with PDCP information list	ОР	1 to <maxrball RABs></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 ></maxtrch 		
>Deleted UL TrCH information	MP		Deleted UL TrCH information 10.3.5.5	
Added or Reconfigured TrCH information list	OP	1 to <maxtrch ></maxtrch 		
>Added or Reconfigured UL TrCH information	MP		Added or Reconfigure d UL TrCH information 10.3.5.2	
CHOICE mode	MP			
>FDD	OD		ODOLL + ID	
>>CPCH set ID	OP		CPCH set ID 10.3.5.3	
>>Added or Reconfigured TrCH information for DRAC list	OP	1 to <maxtrch ></maxtrch 		
>>>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 ></maxtrch 		
>Deleted DL TrCH information	MP		Deleted DL TrCH information 10.3.5.4	
Added or Reconfigured TrCH	OP	1 to		

Information Element/Group name	Need	Multi	Type and reference	Semantics description
information list		<maxtrch< th=""><th></th><th></th></maxtrch<>		
		>		
>Added or Reconfigured DL	MP		Added or	
TrCH information			Reconfigure	
			d DL TrČH	
			information 10.3.5.1	
PhyCH information elements			10.3.3.1	
Frequency info	MD		Frequency	Default value is the existing
	2		info	value of frequency information
			10.3.6.36	
Uplink radio resources				
Maximum allowed UL TX power	MD		Maximum	Default value is the existing
			allowed UL	maximum UL TX power
			TX power	
	OP		10.3.6.39	
CHOICE channel requirement >Uplink DPCH info	OP		Uplink	
John M. Citinio			DPCH info	
			10.3.6.88.	
>CPCH SET Info			CPCH SET	
			Info	
			10.3.6.13	
Downlink radio resources				
CHOICE mode	MP			
>FDD	0.0		5	
>>Downlink PDSCH information	OP		Downlink	
			PDSCH information	
			10.3.6.30	
>TDD	1		. 0.0.0.00	(no data)
Downlink information common	OP		Downlink	
for all radio links			information	
			common for	
			all radio links	
	0.0	1.	10.3.6.24	
Downlink information per radio	OP	1 to		Send downlink information for
link list >Downlink information for each	MP	<maxrl></maxrl>	Downlink	each radio link to be set-up
>Downlink information for each	INIP		information	
radio ii ik			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.

11.2 PDU definitions

```
***************
-- CELL UPDATE CONFIRM
 __ ****************************
CellUpdateConfirm ::= CHOICE {
                                                                                                           SEQUENCE {
                                                                                                         CellUpdateConfirm-r3-IEs,
SEQUENCE {} OPTIONAL
                       cellUpdateConfirm-r3
                      nonCriticalExtensions
                                                                                                          SEQUENCE {
                    rrc-TransactionIdentifier RRC-TransactionIdentifier,
                       criticalExtensions
                                                                                                                      SEQUENCE {}
            }
}
CellUpdateConfirm-r3-IEs ::= SEQUENCE {
            -- User equipment IEs
                       rrc-TransactionIdentifier RRC-TransactionIdentifier, integrityProtectionModeInfo CipheringModeInfo CipheringModeInfo
                                                                                                                                                                                                                              OPTIONAL,
                                                                                                                     CipheringModeInfo
                       cipheringModeInfo
                                                                                                                                                                                                                                    OPTIONAL,
                                                                                                                     ActivationTime
                                                                                                                                                                                                                                   OPTIONAL,
                       activationTime
                       new-U-RNTI
                                                                                                                     U-RNTI
                                                                                                                                                                                                                                   OPTIONAL,
                       new-C-RNTI
                                                                                                                      C-RNTI
                                                                                                                                                                                                                                    OPTIONAL.
                       rrc-StateIndicator
                                                                                                                     RRC-StateIndicator,
                       utran-DRX-CycleLengthCoeff UTRAN-DRX-CycleLengthCoefficient rlc-Re-establishIndicatorRb2-3or4 BOOLEAN,
                                                                                                                                                                                                                                  OPTIONAL.
                        rlc-Re-establishIndicatorRb5orAbove BOOLEAN,
   -- CN information elements
                       cn-InformationInfo
                                                                                                                      CN-InformationInfo
                                                                                                                                                                                                                                    OPTIONAL,
            -- UTRAN mobility IEs
                       ura-Identity
                                                                                                                   URA-Identity
                                                                                                                                                                                                                                    OPTIONAL,
            -- Radio bearer IEs
                       rb-InformationReleaseList
rb-InformationReconfigList
RB-InformationReconfigList
RB-InformationReconfigList
RB-InformationReconfigList
RB-InformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPe
                                                                                                                                                                                                                                    OPTIONAL,
                                                                                                                                                                                                                                  OPTIONAL,
                       rb-InformationAffectedList RB-InformationAffectedList dl-CounterSynchronisationInfo DL-CounterSynchronisationInfo
                                                                                                                                                                                                                                  OPTIONAL.
                                                                                                                                                                                                                                   OPTIONAL,
            -- Transport channel IEs
                       ul-deletedTransChInfoList
ul-AddReconfTransChInfoList
ul-AddReconfTransChInfoList
modeSpecificTransChInfo
fdd
cpch-SetID

UL-CommonTransChInfo
UL-DeletedTransChInfoList
UL-AddReconfTransChInfoList
CHOICE {
SEQUENCE {
CCCU-T-COMMONTRANSCHINFOLIST
SEQUENCE {
CCCU-T-COMMONTRANSCHINFOLIST
CHOICE {
CCC
                       ul-CommonTransChInfo
                                                                                                                      UL-CommonTransChInfo
                                                                                                                                                                                                                                   OPTIONAL,
                                                                                                                                                                                                                                  OPTIONAL.
                                               cpch-SetID
                                                                                                                                                                                                                                    OPTIONAL.
                                                                                                                                               DRAC-StaticInformationList OPTIONAL
                                               addReconfTransChDRAC-Info
                                    tdd
                                                                                                                                   NULL
                       dl-CommonTransChInfo
dl-DeletedTransChInfoList
dl-AddReconfTransChInfoList
DL-AddReconfTransChInfoList
                                                                                                                                                                                                                                  OPTIONAL.
                                                                                                                                                                                                                                  OPTIONAL,
                                                                                                                                                                                                                               OPTIONAL,
             -- Physical channel IEs
                       frequencyInfo
                                                                                                                     FrequencyInfo
                                                                                                                                                                                                                                  OPTIONAL.
                                                                                                                                                                                                                                  OPTIONAL,
                                                                                                                                                                                                                                   OPTIONAL,
                                               dl-PDSCH-Information
                                                                                                                                              DL-PDSCH-Information
                                                                                                                                                                                                                                OPTIONAL
                                   tdd
                                                                                                                                   NULL
                        dl-CommonInformation
                                                                                                                     DL-CommonInformation
                                                                                                                                                                                                                                   OPTIONAL.
                       dl-InformationPerRL-List
                                                                                                                      DL-InformationPerRL-List
                                                                                                                                                                                                                                   OPTIONAL
}
__ ****************
-- CELL UPDATE CONFIRM for CCCH
__ ***************
CellUpdateConfirm-CCCH ::= CHOICE {
```

```
SEQUENCE {
        -- User equipment IEs
           u-RNTI
                                        U-RNTI,
        -- The rest of the message is identical to the one sent on DCCH.
            cellUpdateConfirm-r3
                                                 CellUpdateConfirm-r3-IEs,
                                        SEQUENCE {} OPTIONAL
        nonCriticalExtensions
    later-than-r3
                                    SEQUENCE {
        rrc-TransactionIdentifier
                                        RRC-TransactionIdentifier,
        criticalExtensions
                                        SEQUENCE {}
    }
}
```

11.5 RRC information between network nodes

IMPORTS

```
-- Radio Bearer IEs :
    PredefinedConfigStatusList,
    PredefinedConfigValueTag,
    RAB-InformationSetupList,
    RB-Identity,
   SRB-InformationSetupList,
-- SRNC Relocation information
__ ****************
SRNC-RelocationInfo ::= CHOICE {
                                    SEQUENCE {
        sRNC-RelocationInfo-r3
                                        SRNC-RelocationInfo-r3-IEs,
                                           SEQUENCE {
        v380NonCriticalExtensions
            sRNC-RelocationInfo-v380ext SRNC-RelocationInfo-v380ext-IEs,
            -- Reserved for future non critical extension
            v390NonCriticalExtensions
                                                SEOUENCE {
                sRNC-RelocationInfo-v390ext
                                                    SRNC-RelocationInfo-v390ext-IEs,
                v3<mark>a</mark>0NonCriticalExtensions
                                                    SEQUENCE {
                                                        SRNC-RelocationInfo-v3a0ext-IEs,
                    sRNC-RelocationInfo-v3<mark>a</mark>0ext
                    -- Reserved for future non critical extension
                    nonCriticalExtensions
                                                    SEQUENCE {} OPTIONAL
                        OPTIONAL
                    OPTIONAL
                OPTIONAL
    criticalExtensions
                                    SEQUENCE {}
}
SRNC-RelocationInfo-r3-IEs ::=
                                            SEQUENCE {
     - Non-RRC IEs
        stateOfRRC
                                        StateOfRRC,
        stateOfRRC-Procedure
                                        StateOfRRC-Procedure,
    -- Ciphering related information IEs
   -- If the extension v380 is included use the extension for the ciphering status per CN
                                        CipheringStatus,
        cipheringStatus
        calculationTimeForCiphering
                                        CalculationTimeForCiphering
                                                                             OPTIONAL.
        cipheringInfoPerRB-List
                                        CipheringInfoPerRB-List
                                                                             OPTIONAL,
        count-C-List
                                        COUNT-C-List
                                                                             OPTIONAL,
        integrityProtectionStatus
                                        IntegrityProtectionStatus,
        srb-SpecificIntegrityProtInfo
                                        SRB-SpecificIntegrityProtInfoList,
        implementationSpecificParams
                                        ImplementationSpecificParams
                                                                             OPTIONAL,
    -- User equipment IEs
                                        U-RNTI,
        u-RNTI
        C-RNTI
                                        C-RNTI
                                                                             OPTIONAL,
        ue-RadioAccessCapability
                                        UE-RadioAccessCapability,
        ue-Positioning-LastKnownPos
                                        UE-Positioning-LastKnownPos
                                                                             OPTIONAL,
    -- Other IEs
        ue-RATSpecificCapability
                                        InterRAT-UE-RadioAccessCapabilityList OPTIONAL,
    -- UTRAN mobility IEs
                                                                             OPTIONAL,
        ura-Identity
                                        URA-Identity
    -- Core network IEs
        cn-CommonGSM-MAP-NAS-SysInfo
                                        NAS-SystemInformationGSM-MAP,
```

```
cn-DomainInformationList
                                     CN-DomainInformationList
                                                                          OPTIONAL,
    -- Measurement IEs
       ongoingMeasRepList
                                       OngoingMeasRepList
                                                                          OPTIONAL,
    -- Radio bearer IEs
       predefinedConfigStatusList
                                     PredefinedConfigStatusList,
       srb-InformationList
                                      SRB-InformationSetupList,
       rab-InformationList
                                      RAB-InformationSetupList
                                                                          OPTIONAL,
    -- Transport channel IEs
                                     UL-CommonTransChInfo
       ul-CommonTransChInfo
                                                                          OPTIONAL,
       ul-TransChInfoList
                                       UL-AddReconfTransChInfoList
                                                                          OPTIONAL,
       modeSpecificInfo
                                       CHOICE {
                                           SEQUENCE {
           fdd
               cpch-SetID
                                               CPCH-SetID
                                                                          OPTIONAL.
               transChDRAC-Info
                                               DRAC-StaticInformationList OPTIONAL
           },
           tdd
                                          NULL
       dl-CommonTransChInfo
                                     DL-CommonTransChInfo
                                                                          OPTIONAL,
       dl-TransChInfoList
                                      DL-AddReconfTransChInfoList
                                                                          OPTIONAL,
    -- Measurement report
       measurementReport
                                                                          OPTIONAL
                                      MeasurementReport
}
SRNC-RelocationInfo-v380ext-IEs ::= SEQUENCE {
    -- Ciphering related information IEs
                                           CN-DomainIdentity,
       cn-DomainIdentity
       cipheringStatusList
                                          CipheringStatusList
}
SRNC-RelocationInfo-v390ext-IEs ::= SEQUENCE {
       cn-DomainInformationList-v390ext CN-DomainInformationList-v390ext
                                                                                  OPTIONAL,
       ue-RadioAccessCapability-v380ext UE-RadioAccessCapability-v380ext,

DL-PhysChCapabilityFDD-v380ext,
       ue-RadioAccessCapability-v370ext
                                          UE-RadioAccessCapability-v370ext
                                                                                  OPTIONAL,
       ue-RadioAccessCapability....
dl-PhysChCapabilityFDD-v380ext
DL-PhysChCapability...
FailureCauseWithProtErr
                                          UE-RadioAccessCapability-v380ext
                                                                                  OPTIONAL,
                                                                                  OPTIONAL
}
SRNC-RelocationInfo-v3a0ext-IEs ::= SEQUENCE{
       CipheringInfoPerRB-List-v3a0ext ::= SEQUENCE{
       dl-UM-SN
                                       BIT STRING(7)
```

14.12.4.2 SRNS RELOCATION INFO

This RRC message is sent between network nodes when preparing for an SRNS relocation.

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
Non RRC les				
>State of RRC	MP		RRC state indicator, 10.3.3.10	
>State of RRC procedure	MP		Enumerated (await no RRC message, Complete, await RB Setup Complete, await RB Reconfigurat ion Complete, await RB Release Complete, await TRB	

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
Nume			CH Reconfigurat ion Complete, await Physical CH Reconfigurat ion Complete, await Active Set Update Complete, await Handover Complete, send Cell Update Confirm, send URA Update Confirm, , others)	
Ciphering related information			, otners)	
>Ciphering status for each CN domain	MP	<1 to maxCNDo mains>		
>>CN domain identity	MP		CN domain identity 10.3.1.1	
>>Ciphering status	MP		Enumerated(Not started, Started)	
>Latest configured CN domain	MP		CN domain identity 10.3.1.1	Value contained in the variable of the same name.
>Calculation time for ciphering related information	CV- Ciphering			Time when the ciphering information of the message were calculated, relative to a cell of the target RNC
>>Cell Identity	MP		Cell Identity 10.3.2.2	Identity of one of the cells under the target RNC and included in the active set of the current call
>>SFN	MP		Integer(040 95)	
>COUNT-C list	CV- Ciphering	1 to <maxcndo mains></maxcndo 		COUNT-C values for radio bearers using transparent mode RLC
>>CN domain identity	MP		CN domain identity 10.3.1.1	
>>COUNT-C	MP		Bit string(32)	
>Ciphering info per radio bearer	OP	1 to <maxrb></maxrb>		For signalling radio bearers this IE is mandatory.
>>RB identity	MP		RB identity 10.3.4.16	
>>Downlink HFN	MP		Bit string(2025)	This IE is either RLC AM HFN (20 bits) or RLC UM HFN (25 bits)
>>Downlink SN	CV-SRB1		Bit String(7)	VT(US) of RLC UM
>>Uplink HFN	MP		Bit string(2025	This IE is either RLC AM HFN (20 bits) or RLC UM HFN (25 bits)

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
Integrity protection related information				
>Integrity protection status	MP		Enumerated(Not started, Started)	
>Signalling radio bearer specific integrity protection information	CV-IP	4 to <maxsrbs etup></maxsrbs 		
>>Uplink RRC HFN	MP		Bit string (28)	
>>Downlink RRC HFN	MP		Bit string (28)	
>>Uplink RRC Message sequence number	MP		Integer (0 15)	
>>Downlink RRC Message sequence number	MP		Integer (0 15)	
>Implementation specific parameters	OP		Bit string (1512)	
RRC IEs			(**************************************	
UE Information elements				
>U-RNTI	MP		U-RNTI 10.3.3.47	
>C-RNTI	OP		C-RNTI 10.3.3.8	
>UE radio access Capability	MP		UE radio access	
			capability 10.3.3.42	
>UE radio access capability	OP		UE radio	
extension	OP		access	
			capability extension	
. Look known LIC position	OD		10.3.3.42a	
>Last known UE position >>SFN	OP MP		Intogor	Time when position was
			Integer (04095)	estimated
>>Cell ID	MP		Cell identity; 10.3.2.2	Indicates the cell, the SFN is valid for.
>>CHOICE Position estimate	MP			
>>>Ellipsoid Point			Ellipsoid Point;	
			10.3.8.4a	
>>>Ellipsoid point with			Ellipsoid	
uncertainty circle			point with	
			uncertainty	
			circle	
>>>Ellipsoid point with			10.3.8.4d Ellipsoid	
uncertainty ellipse			point with	
uncertainty empse			uncertainty	
			ellipse	
			10.3.8.4e	
>>>Ellipsoid point with altitude			Ellipsoid	
•			point with	
			altitude	
			10.3.8.4b	
>>>Ellipsoid point with altitude			Ellipsoid	
and uncertainty ellipsoid			point with	
			altitude and	
			uncertainty	
			ellipsoid 10.3.8.4c	
Other Information elements		1	10.0.0.70	
>UE system specific capability	OP	1 to		
	J	<maxsyste< td=""><td></td><td></td></maxsyste<>		

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
		mCapabilit y>		
>>Inter-RAT UE radio access capability	MP	y	Inter-RAT UE radio access capability 10.3.8.7	
UTRAN Mobility Information elements				
>URA Identifier	OP		URA identity	
CN Information Elements			10.3.2.6	
>CN common GSM-MAP NAS system information	MP		NAS system information (GSM-MAP) 10.3.1.9	
>CN domain related information	OP	1 to <maxcndo mains></maxcndo 		CN related information to be provided for each CN domain
>>CN domain identity	MP			
>>CN domain specific GSM- MAP NAS system info	MP		NAS system information (GSM-MAP) 10.3.1.9	
>>CN domain specific DRX cycle length coefficient	MP		CN domain specific DRX cycle length coefficient, 10.3.3.6	
Measurement Related Information elements				
>For each ongoing measurement reporting	OP	1 to <maxnoof Meas></maxnoof 		
>>Measurement Identity	MP		Measuremen t identity 10.3.7.48	
>>Measurement Command	MP		Measuremen t command 10.3.7.46	
>>Measurement Type	CV-Setup		Measuremen t type 10.3.7.50	
>>Measurement Reporting Mode	OP		Measuremen t reporting mode 10.3.7.49	
>>Additional Measurements list	OP		Additional measuremen ts list 10.3.7.1	
>>CHOICE Measurement	OP			
>>>Intra-frequency >>>>Intra-frequency cell info	OP		Intra-	
>>>>Intra-frequency centino	OF		frequency cell info list 10.3.7.33	
>>>>Intra-frequency measurement quantity	OP		Intra- frequency measuremen t quantity 10.3.7.38	
>>>>Intra-frequency reporting quantity	OP		Intra- frequency reporting	

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
			quantity 10.3.7.41	
>>>Reporting cell status	ОР		Reporting cell status 10.3.7.61	
>>>>Measurement validity	ОР		Measuremen t validity 10.3.7.51	
>>>CHOICE report criteria	OP		10.0.1.01	
>>>>Intra-frequency measurement reporting criteria			Intra- frequency measuremen t reporting criteria 10.3.7.39	
>>>>Periodical reporting			Periodical reporting criteria 10.3.7.53	
>>>>No reporting			NULL	
>>>Inter-frequency	OP		Intor	
>>>Inter-frequency cell info	ОР		Inter- frequency cell info list 10.3.7.13	
>>>Inter-frequency measurement quantity	OP		Inter- frequency measuremen t quantity 10.3.7.18	
>>>>Inter-frequency reporting quantity	OP		Inter- frequency reporting quantity 10.3.7.21	
>>>Reporting cell status	OP		Reporting cell status 10.3.7.61	
>>>Measurement validity	OP		Measuremen t validity 10.3.7.51	
>>>>CHOICE report criteria	OP			
>>>>Inter-frequency measurement reporting criteria			Inter- frequency measuremen t reporting criteria 10.3.7.19	
>>>>Periodical reporting			Periodical reporting criteria 10.3.7.53	
>>>>No reporting >>>Inter-RAT	1		NULL	
>>>Inter-RAT >>>>Inter-RAT cell info	OP		Inter-RAT cell info list 10.3.7.23	
>>>Inter-RAT measurement quantity	OP		Inter-RAT measuremen t quantity 10.3.7.29	
>>>Inter-RAT reporting quantity	OP		Inter-RAT reporting quantity 10.3.7.32	

>>>>Reporting cell status OP Reporting cell status 10.3.7.61 >>>>Measurement validity 10.3.7.61 >>>>>CHOICE report criteria >>>>>Periodical reporting criteria >>>>>Traffic volume Traffic volume Measurement OP Traffic volume Measurement Traffic volume Measurement Traffic volume Traffic volume Traffic volume Traffic volume Traffic volume Traffic volume Measurement Traffic volume Traffic volume Measurement Traffic volume Measurement Traffic volume Traffic volume Measurement Traffic volume Traffic volume Traffic volume Measurement Traffic volume Traffic	Information Element/Group Name	Need	Multi	Type and reference	Semantics description
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t reporting criteria 10.3.7.58 >>>>Periodical reporting Periodical reporting criteria 10.3.7.53 >>>>No reporting NULL >>>UE internal >>>>UE internal measurement quantity Treporting criteria 10.3.7.53 UE internal measurement quantity					
criteria 10.3.7.58 >>>>Periodical reporting Periodical reporting criteria 10.3.7.53 >>>>No reporting NULL >>>UE internal >>>>UE internal measurement quantity OP UE internal measuremen t quantity	reporting criteria				
>>>>Periodical reporting Periodical reporting reporting criteria 10.3.7.53 >>>>No reporting NULL >>>UE internal >>>>UE internal measurement quantity OP UE internal measuremen t quantity					
>>>>Periodical reporting Periodical reporting criteria 10.3.7.53 >>>>No reporting NULL >>>UE internal >>>>UE internal measurement quantity OP UE internal measuremen t quantity					
reporting criteria 10.3.7.53 >>>>No reporting NULL >>>UE internal >>>UE internal measurement quantity Personal UE internal measuremen t quantity					
reporting criteria 10.3.7.53 >>>>No reporting NULL >>>UE internal >>>>UE internal measurement quantity Population of the properties of t	>>>>Periodical reporting				
criteria 10.3.7.53 >>>>No reporting NULL >>>UE internal >>>>UE internal measurement quantity OP UE internal measuremen t quantity	-				
>>>>No reporting >>>UE internal >>>UE internal measurement quantity DP UE internal measuremen t quantity					
>>>>No reporting >>>UE internal >>>UE internal measurement quantity NULL UE internal measuremen t quantity					
>>>UE internal >>>>UE internal measurement op uE internal measuremen t quantity	>>>>No reporting	1			
>>>>UE internal measurement quantity OP UE internal measuremen t quantity		1			
quantity measuremen t quantity		OP		UF internal	
t quantity					
	quantity				
				10.3.7.79	

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
>>>UE internal reporting	OP		UE internal	
quantity			reporting	
			quantity	
			10.3.7.82	
>>>>CHOICE report criteria	OP			
>>>>UE internal measurement			UE internal	
reporting criteria			measuremen	
			t reporting	
			criteria	
Davis disal varianting			10.3.7.80 Periodical	
>>>>Periodical reporting				
			reporting criteria	
			10.3.7.53	
>>>>No reporting			NULL	
>>UE positioning			INOLL	
>>>LCS reporting quantity	OP		LCS	
>>>LCS reporting quantity	Oi		reporting	
			quantity	
			10.3.7.111	
>>>CHOICE report criteria	OP			
>>>>LCS reporting criteria	1		LCS	
and the second second			reporting	
			criteria	
			10.3.7.110	
>>>>Periodical reporting			Periodical	
			reporting	
			criteria	
			10.3.7.53	
>>>>No reporting				
Radio Bearer Information				
Elements				
>Pre-defined configuration	OP		Pre-defined	
status information			configuration	
			status	
			information 14.13.2.3	
>Signalling RB information list	MP	1 to	14.13.2.3	For each signalling radio
25 Ignaming NB information list	IVII	<maxsrbs< td=""><td></td><td>bearer</td></maxsrbs<>		bearer
		etup>		bearer
>>Signalling RB information	MP	otup:	Signalling	
and the second s			RB	
			information	
			to setup	
			10.3.4.24	
>RAB information list	OP	1 to		Information for each RAB
		<maxrabs< td=""><td></td><td></td></maxrabs<>		
	1	etup>		
>>RAB information	MP		RAB	
			information	
			to setup	
Transport Charge	1		10.3.4.10	
Transport Channel Information Elements				
Uplink transport channels	+			
>UL Transport channel	OP		UL Transport	
information common for all			channel	
transport channels			information	
a a roport orial molo			common for	
			all transport	
			channels	
			10.3.5.24	
>UL transport channel	OP	1 to		
information list		<maxtrch< td=""><td></td><td></td></maxtrch<>		
		i	Ī	İ

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
>>UL transport channel information	MP		Added or reconfigured UL TrCH information 10.3.5.2	
>CHOICE mode	OP			
>>FDD				
>>>CPCH set ID	OP		CPCH set ID 10.3.5.5	
>>>Transport channel information for DRAC list	OP	1 to <maxtrch ></maxtrch 		
>>>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	
>DL transport channel information list	OP	1 to <maxtrch ></maxtrch 		
>>DL transport channel information	MP		Added or reconfigured DL TrCH information 10.3.5.1	
>Measurement report	OP		MEASUREM ENT REPORT 10.2.17	
Other Information elements				
Failure cause	OP		Failure cause 10.3.3.13	Diagnostics information related to an earlier SRNC Relocation request (see NOTE 2 in 14.12.0a)
Protocol error information	CV-ProtErr		Protocol error information 10.3.8.12	

Multi Bound	Explanation
MaxNoOfMeas	Maximum number of active measurements, upper
	limit 16

Condition	Explanation
Setup	The IE is mandatory present when the IE Measurement command has the value "Setup", otherwise the IE is not needed.
Ciphering	The IE is mandatory present when the IE Ciphering Status has the value "started" and the ciphering counters need not be reinitialised, otherwise the IE is not needed.
IP	The IE is mandatory present when the IE Integrity protection status has the value "started" and the integrity protection counters need not be reinitialised, otherwise the IE is not needed.
ProtErr	This IE is mandatory present if the IE "Protocol error indicator" is included and has the value "TRUE". Otherwise it is not needed.
SRB1	The IE is mandatory present for the SRB #1. Otherwise it is not needed.

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			CH	ANGE R	EQ	UEST	•			CR-Form-v5
x 2	2 <mark>5.33</mark> ′	1	CR 134	8 #1	rev	r3 st	Current vers	sion:	3.9.0	ж
For <u>HELP</u> o	on using	this for	m, see bott	om of this pa	ge or	look at th	e pop-up text	over	the ¥ syr	mbols.
Proposed chan	ge affe	cts: #	(U)SIM	ME/UE	X	Radio Ad	ccess Networl	k X	Core Ne	etwork
Title:	₩ C	orrectior	ns to suppo	t combined (Cell/U	RA updat	te and SRNS	reloca	ation proc	edure
Source:	ж <u>т</u> :	SG-RAN	I WG2							
Work item code	e: Ж <mark>Т</mark> [El					Date: ૠ	Feb	oruary 200	02
Category:	Det	F (corr A (corr B (add C (fund D (edit tailed exp	responds to a lition of featu ctional modifi torial modifica	a correction in re), cation of featuation) the above cat	ıre)		Release: ₩ Use <u>one</u> of 2 e) R96 R97 R98 R99 REL-4 REL-5	the fo (GSM (Rele (Rele (Rele (Rele (Rele	-	
		- - - -	the CELL should be the first U the IE "R	/URA UPDA transmitted of MD PDU sho	TE CC n DCC ould inc th indic	ONFIRM of the Use of the Control of	2, RB3 and RB	BILI' #1).	ΓΥ INFOR	RMATION
Summary of ch	ange: ዝ	2. In 6 MO! 3. "Use 4. The CEL /* Note 1. UE:	case of SR BILITY INF e Special LI' useless IE 'LL/URA UPE should be ab	NS relocation ORMATION can be used for the control CATE CONFI	n, the is mad for the blish in RM made	CELL/UI e to be ser DL DCCH edicator (Fessage)	RA UPDATE at on SRB#1 or I case. RB2, RB3 and other also.	CON nly. RB4)	IFIRM or	UTRAN
		Isolate is SRN would The ch	d Impact An IS relocation affect imples anges for Re	. Would not a	sed cha affect in pporting ghted.	inge has an implementage the corre	n isolated impa ations behaving ected functiona	g like	indicated i	
Consequences not approved:	if #	f Failure	of combine	l Cell/URA uj	pdate a	and SRNS	relocation proc	cedure		

Clauses affected:	8 6.3, 8.3.1.5, 8.3.3.2, 11.5, 14.12.4.2
Other specs affected:	# Other core specifications # 25.331 v4.3.0, CR 1349 Test specifications O&M Specifications
Other comments:	*

How to create CRs using this form:

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

- 1) Fill out the above form. The symbols above marked # contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://www.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

6.3 Signalling Radio Bearers

The Radio Bearers (RB) available for transmission of RRC messages are defined as "signalling radio bearers" and are specified in the following. The UE and UTRAN shall select the signalling radio bearers for RRC messages using RLC-TM, RLC-UM or RLC-AM on the DCCH and CCCH, according to the following:

- Signalling radio bearer RB0 shall be used for all messages sent on the CCCH (UL: RLC-TM, DL: RLC-UM).
- Signalling radio bearer RB1 shall be used for all messages sent on the DCCH, when using RLC unacknowledged mode (RLC-UM).
- Signalling radio bearer RB2 shall be used for all messages sent on the DCCH, when using RLC acknowledged mode (RLC-AM), except for the RRC messages carrying higher layer (NAS) signalling.
- Signalling radio bearer RB3 and optionally Signalling radio bearer RB4 shall be used for the RRC messages carrying higher layer (NAS) signalling and sent on the DCCH in RLC acknowledged mode (RLC-AM), as specified in subclauses 8.1.8., 8.1.9 and 8.1.10.
- RRC messages on the SHCCH are mapped either on RACH or on the USCH in the uplink using TM and either on FACH or on the DSCH using RLC-UM. These messages are only specified for TDD mode.

The Radio Bearer configuration for signalling radio bearer RB0, SHCCH, BCCH on FACH and PCCH on PCH are specified in subclauses 13.6, 13.6a, 13.6b and 13.6c.

When an RRC message is transmitted in DL on <u>DCCH</u> (in case of <u>SRNS</u> relocation) or <u>CCCH</u> or SHCCH using RLC UM, RRC should indicate to RLC that a special RLC length indicator should be used [16]. The UE shall assume that this indication has been given. The special length indicator indicates that an RLC SDU begins in the beginning of an RLC PDU.

8.3 RRC connection mobility procedures

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, it may either the UTRAN should:

- in case the procedure was triggered by reception of a CELL UPDATE:
 - if SRNS relocation was performed:
 - transmit a CELL UPDATE CONFIRM message on the downlink DCCH;

- otherwise:

- 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"; /* Note to Hans; the indent was changed to B3 */
- 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": /* Note to Hans: the indent was changed to B3 */

- set the 20 MSB of the MAC-d HFN with the corresponding START value in the IE "START list"; /* Note to Hans; the indent was changed to B4 */
- set the remaining LSB of the MAC-d HFN to zero. **Note to Hans; the indent was changed to B4 */
- transmit a CELL UPDATE CONFIRM message on the downlink DCCH or optionally on the CCCH but only if ciphering is not required; and /* Note to Hans; the indent was changed to B3 */
- optionally include the IE "RLC re-establish indicator (RB5 and upwards)" to request a
 RLC re-establishment in the UE, in which case the corresponding RLC entities should
 also be re-established in UTRAN; or /* Note to Hans; the indent was changed to B3 */
- in case the procedure was triggered by reception of a URA UPDATE:
 - if SRNS relocation was performed:
 - transmit a URA UPDATE CONFIRM message on the downlink DCCH;
 - otherwise:
 - transmit a URA UPDATE CONFIRM message on the downlink CCCH or DCCH;
 - transmit a URA UPDATE CONFIRM message to the lower layers for transmission on the downlink CCCH or DCCH in which case the UTRAN should include the IE "URA identity" in the URA UPDATE CONFIRM message in a cell where multiple URA identifiers are broadcast; or
- 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:
 - if the CELL UPDATE message was sent because of an unrecoverable error in RB2, RB3 or RB4:
 - initiate an RRC connection release procedure (subclause 8.1.4) by transmitting an RRC CONNECTION RELEASE message on the downlink CCCH.

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 shall:

- stop timer T302;
- in case of a cell update procedure and the CELL UPDATE CONFIRM message:
 - includes "RB information elements"; and/or
 - includes "Transport channel information elements"; and/or
 - includes "Physical channel information elements"; and
 - if the variable ORDERED_RECONFIGURATION is set to FALSE:
 - set the variable ORDERED_RECONFIGURATION to TRUE;
- act upon all received information elements as specified in subclause 8.6, unless specified otherwise in the following:

- if the IE "Frequency info" is included in the message:
 - if the IE "RRC State Indicator" is set to the value "CELL_FACH" or "CELL_PCH" or URA_PCH":
 - select a suitable UTRA cell according to [4] on that frequency;
 - act as specified in subclause 8.3.1.12.
 - if the IE "RRC State Indicator" is set to the value "CELL_DCH":
 - act on the IE "Frequency info" as specified in subclause 8.6.6.1.
- use the transport channel(s) applicable for the physical channel types that is used; and
- if the IE "TFS" is neither included nor previously stored in the UE for that transport channel(s):
 - use the TFS given in system information.
- if none of the TFS stored is compatible with the physical channel:
 - delete the stored TFS;
 - use the TFS given in system information.
- perform the physical layer synchronisation procedure as specified in [29];
- if the CELL UPDATE CONFIRM message includes the IE "RLC re-establish indicator (RB2, RB3 and RB4)":
 - re-establish the RLC entities for signalling radio bearer RB2, signalling radio bearer RB3 and signalling radio bearer RB4 (if established);
 - 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":
 - set the HFN 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;
- if the CELL UPDATE CONFIRM message includes the IE "RLC re-establish indicator (RB5 and upwards)":
 - for radio bearers with RB identity 5 and upwards:
 - re-establish the AM RLC entities;
 - 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":
 - set the HFN 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;
- enter a state according to subclause 8.6.3.3 applied on the CELL UPDATE CONFIRM / URA UPDATE CONFIRM message.

8.3.3 UTRAN mobility information

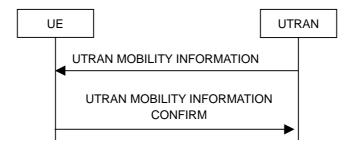


Figure 8.3.3-1: UTRAN mobility information procedure, normal flow

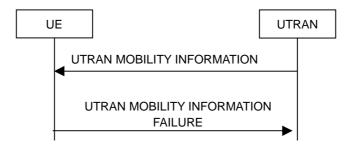


Figure 8.3.3-2: UTRAN mobility information procedure, failure case

8.3.3.1 General

The purpose of this procedure is to allocate any one or a combination of the following to a UE in connected mode:

- a new C-RNTI;
- a new U-RNTI;
- other mobility related information.

8.3.3.2 Initiation

To initiate the procedure UTRAN transmits a UTRAN MOBILITY INFORMATION message to the UE on the downlink DCCH using AM or UM RLC. In case of SRNS relocation, the message is sent using UM RLC only.

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	
UE Information Elements			Туре	
U-RNTI	CV-CCCH		U-RNTI	
			10.3.3.47	
RRC transaction identifier	MP		RRC transaction	
			identifier	
	011		10.3.3.36	
Integrity check info	СН		Integrity check info	
			10.3.3.16	
Integrity protection mode info	OP		Integrity	
			protection mode info	
			10.3.3.19	
Ciphering mode info	OP		Ciphering	
			mode info 10.3.3.5	
Activation time	MD		Activation	Default value is "now"
No I DAIT!	OB		time 10.3.3.1	
New U-RNTI	OP		U-RNTI 10.3.3.47	
New C-RNTI	OP		C-RNTI	
RRC State Indicator	MP		10.3.3.8 RRC State	
RRC State indicator	INP		Indicator	
			10.3.3.10	
UTRAN DRX cycle length coefficient	MD		UTRAN DRX	Default value is the existing
Coefficient			cycle length coefficient	DRX cycle length coefficient
			10.3.3.49	
RLC re-establish indicator (RB2, RB3 and RB4)	MP		RLC re- establish	
KD3 aliu KD4)			indicator	
			10.3.3.3 <mark>5</mark>	
RLC re-establish indicator (RB5 and upwards)	MP		RLC re- establish	
and upwards)			indicator	
			10.3.3.35	
CN Information Elements CN Information info	OP		CN	
CIV IIIOIIIation IIIO			Information	
			info 10.3.1.3	
UTRAN Information Elements URA identity	OP		URA identity	
•			10.3.2.6	
RB information elements	OD	4.4-		
RB information to release list	OP	1 to <maxrb></maxrb>		
>RB information to release	MP		RB	
			information	
			to release 10.3.4.19	
RB information to reconfigure list	OP	1 to		
>RB information to reconfigure	MP	<maxrb></maxrb>	RB	
/ / Information to reconligure	IVII		information	
			to	
			reconfigure 10.3.4.18	
RB information to be affected list	OP	1 to	70.0.1.10	
DD informs (i.e., t. 1	MD	<maxrb></maxrb>	DD	
>RB information to be affected	MP		RB	

Information Element/Group name	Need	Multi	Type and reference	Semantics description
			information to be affected 10.3.4.17	
Downlink counter	OP			
synchronisation info >RB with PDCP information list	ОР	1 to <maxrball RABs></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 ></maxtrch 		
>Deleted UL TrCH information	MP		Deleted UL TrCH information 10.3.5.5	
Added or Reconfigured TrCH information list	OP	1 to <maxtrch ></maxtrch 		
>Added or Reconfigured UL TrCH information	MP		Added or Reconfigure d UL TrCH information 10.3.5.2	
CHOICE mode	MP			
>FDD	OD		ODOLL + ID	
>>CPCH set ID	OP		CPCH set ID 10.3.5.3	
>>Added or Reconfigured TrCH information for DRAC list	OP	1 to <maxtrch ></maxtrch 		
>>>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 ></maxtrch 		
>Deleted DL TrCH information	MP		Deleted DL TrCH information 10.3.5.4	
Added or Reconfigured TrCH	OP	1 to		

Information Element/Group	Need	Multi	Type and reference	Semantics description
information list		<maxtrch< th=""><th></th><th></th></maxtrch<>		
		>		
>Added or Reconfigured DL	MP		Added or	
TrCH information			Reconfigure d DL TrCH	
			information	
			10.3.5.1	
PhyCH information elements				
Frequency info	MD		Frequency	Default value is the existing
			info	value of frequency information
			10.3.6.36	
Uplink radio resources Maximum allowed UL TX power	MD		Maxima	Default value is the existing
Maximum allowed OL 1X power	MD		Maximum allowed UL	Default value is the existing maximum UL TX power
			TX power	maximum of 1x power
			10.3.6.39	
CHOICE channel requirement	OP			
>Uplink DPCH info			Uplink	
			DPCH info	
ODOLL OFT 1-4-			10.3.6.88.	
>CPCH SET Info			CPCH SET	
			10.3.6.13	
Downlink radio resources			10.0.0.10	
CHOICE mode	MP			
>FDD				
>>Downlink PDSCH information	OP		Downlink	
			PDSCH	
			information 10.3.6.30	
>TDD			10.3.6.30	(no data)
Downlink information common	OP		Downlink	(
for all radio links			information	
			common for	
			all radio links	
Downlink information nor redi-	OB	1 to	10.3.6.24	Send downlink information for
Downlink information per radio link list	OP	1 to <maxrl></maxrl>		each radio link to be set-up
>Downlink information for each	MP	\IIIaxi\L>	Downlink	each radio link to be set-up
radio link	1411		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

11.2 PDU definitions

```
***************
-- CELL UPDATE CONFIRM
 __ ****************************
CellUpdateConfirm ::= CHOICE {
                                                                                                           SEQUENCE {
                                                                                                         CellUpdateConfirm-r3-IEs,
SEQUENCE {} OPTIONAL
                       cellUpdateConfirm-r3
                      nonCriticalExtensions
                                                                                                          SEQUENCE {
                    rrc-TransactionIdentifier RRC-TransactionIdentifier,
                       criticalExtensions
                                                                                                                      SEQUENCE {}
            }
}
CellUpdateConfirm-r3-IEs ::= SEQUENCE {
            -- User equipment IEs
                       rrc-TransactionIdentifier RRC-TransactionIdentifier, integrityProtectionModeInfo CipheringModeInfo CipheringModeInfo
                                                                                                                                                                                                                              OPTIONAL,
                                                                                                                     CipheringModeInfo
                       cipheringModeInfo
                                                                                                                                                                                                                                    OPTIONAL,
                                                                                                                     ActivationTime
                                                                                                                                                                                                                                   OPTIONAL,
                       activationTime
                       new-U-RNTI
                                                                                                                     U-RNTI
                                                                                                                                                                                                                                   OPTIONAL,
                       new-C-RNTI
                                                                                                                      C-RNTI
                                                                                                                                                                                                                                    OPTIONAL.
                       rrc-StateIndicator
                                                                                                                     RRC-StateIndicator,
                       utran-DRX-CycleLengthCoeff UTRAN-DRX-CycleLengthCoefficient rlc-Re-establishIndicatorRb2-3or4 BOOLEAN,
                                                                                                                                                                                                                                  OPTIONAL.
                        rlc-Re-establishIndicatorRb5orAbove BOOLEAN,
   -- CN information elements
                       cn-InformationInfo
                                                                                                                      CN-InformationInfo
                                                                                                                                                                                                                                    OPTIONAL,
            -- UTRAN mobility IEs
                       ura-Identity
                                                                                                                   URA-Identity
                                                                                                                                                                                                                                    OPTIONAL,
            -- Radio bearer IEs
                       rb-InformationReleaseList
rb-InformationReconfigList
RB-InformationReconfigList
RB-InformationReconfigList
RB-InformationReconfigList
RB-InformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPerformationPe
                                                                                                                                                                                                                                    OPTIONAL,
                                                                                                                                                                                                                                  OPTIONAL,
                       rb-InformationAffectedList RB-InformationAffectedList dl-CounterSynchronisationInfo DL-CounterSynchronisationInfo
                                                                                                                                                                                                                                  OPTIONAL.
                                                                                                                                                                                                                                   OPTIONAL,
            -- Transport channel IEs
                       ul-deletedTransChInfoList
ul-AddReconfTransChInfoList
ul-AddReconfTransChInfoList
modeSpecificTransChInfo
fdd
cpch-SetID

UL-CommonTransChInfo
UL-DeletedTransChInfoList
UL-AddReconfTransChInfoList
CHOICE {
SEQUENCE {
CCCU-T-COMMONTRANSCHINFOLIST
SEQUENCE {
CCCU-T-COMMONTRANSCHINFOLIST
CHOICE {
CCC
                       ul-CommonTransChInfo
                                                                                                                      UL-CommonTransChInfo
                                                                                                                                                                                                                                   OPTIONAL,
                                                                                                                                                                                                                                  OPTIONAL.
                                               cpch-SetID
                                                                                                                                                                                                                                    OPTIONAL.
                                                                                                                                               DRAC-StaticInformationList OPTIONAL
                                               addReconfTransChDRAC-Info
                                    tdd
                                                                                                                                   NULL
                       dl-CommonTransChInfo
dl-DeletedTransChInfoList
dl-AddReconfTransChInfoList
DL-AddReconfTransChInfoList
                                                                                                                                                                                                                                  OPTIONAL.
                                                                                                                                                                                                                                  OPTIONAL,
                                                                                                                                                                                                                               OPTIONAL,
             -- Physical channel IEs
                       frequencyInfo
                                                                                                                     FrequencyInfo
                                                                                                                                                                                                                                  OPTIONAL.
                                                                                                                                                                                                                                  OPTIONAL,
                                                                                                                                                                                                                                   OPTIONAL,
                                               dl-PDSCH-Information
                                                                                                                                              DL-PDSCH-Information
                                                                                                                                                                                                                                OPTIONAL
                                   tdd
                                                                                                                                   NULL
                        dl-CommonInformation
                                                                                                                     DL-CommonInformation
                                                                                                                                                                                                                                   OPTIONAL.
                       dl-InformationPerRL-List
                                                                                                                      DL-InformationPerRL-List
                                                                                                                                                                                                                                   OPTIONAL
}
__ ****************
-- CELL UPDATE CONFIRM for CCCH
__ ***************
CellUpdateConfirm-CCCH ::= CHOICE {
```

```
SEQUENCE {
        -- User equipment IEs
           u-RNTI
                                        U-RNTI,
        -- The rest of the message is identical to the one sent on DCCH.
            cellUpdateConfirm-r3
                                                 CellUpdateConfirm-r3-IEs,
                                        SEQUENCE {} OPTIONAL
        nonCriticalExtensions
    later-than-r3
                                    SEQUENCE {
        rrc-TransactionIdentifier
                                        RRC-TransactionIdentifier,
        criticalExtensions
                                        SEQUENCE {}
    }
}
```

11.5 RRC information between network nodes

```
IMPORTS
-- Radio Bearer IEs :
    PredefinedConfigStatusList,
    PredefinedConfigValueTag,
    RAB-InformationSetupList,
    RB-Identity,
   SRB-InformationSetupList,
-- SRNC Relocation information
__ ****************
SRNC-RelocationInfo ::= CHOICE {
                                    SEQUENCE {
        sRNC-RelocationInfo-r3
                                        SRNC-RelocationInfo-r3-IEs,
                                           SEQUENCE {
        v380NonCriticalExtensions
            sRNC-RelocationInfo-v380ext SRNC-RelocationInfo-v380ext-IEs,
            -- Reserved for future non critical extension
            v390NonCriticalExtensions
                                                SEOUENCE {
                sRNC-RelocationInfo-v390ext
                                                    SRNC-RelocationInfo-v390ext-IEs,
                v3<mark>a</mark>0NonCriticalExtensions
                                                    SEQUENCE {
                                                        SRNC-RelocationInfo-v3a0ext-IEs,
                    sRNC-RelocationInfo-v3<mark>a</mark>0ext
                    -- Reserved for future non critical extension
                    nonCriticalExtensions
                                                    SEQUENCE {} OPTIONAL
                        OPTIONAL
                    OPTIONAL
                OPTIONAL
    criticalExtensions
                                    SEQUENCE {}
}
SRNC-RelocationInfo-r3-IEs ::=
                                            SEQUENCE {
     - Non-RRC IEs
        stateOfRRC
                                        StateOfRRC,
        stateOfRRC-Procedure
                                        StateOfRRC-Procedure,
    -- Ciphering related information IEs
   -- If the extension v380 is included use the extension for the ciphering status per CN
                                        CipheringStatus,
        cipheringStatus
        calculationTimeForCiphering
                                        CalculationTimeForCiphering
                                                                             OPTIONAL.
        cipheringInfoPerRB-List
                                        CipheringInfoPerRB-List
                                                                             OPTIONAL,
        count-C-List
                                        COUNT-C-List
                                                                             OPTIONAL,
        integrityProtectionStatus
                                        IntegrityProtectionStatus,
        srb-SpecificIntegrityProtInfo
                                        SRB-SpecificIntegrityProtInfoList,
        implementationSpecificParams
                                        ImplementationSpecificParams
                                                                             OPTIONAL,
    -- User equipment IEs
                                        U-RNTI,
        u-RNTI
        C-RNTI
                                        C-RNTI
                                                                             OPTIONAL,
        ue-RadioAccessCapability
                                        UE-RadioAccessCapability,
        ue-Positioning-LastKnownPos
                                        UE-Positioning-LastKnownPos
                                                                             OPTIONAL,
    -- Other IEs
        ue-RATSpecificCapability
                                        InterRAT-UE-RadioAccessCapabilityList OPTIONAL,
    -- UTRAN mobility IEs
                                                                             OPTIONAL,
        ura-Identity
                                        URA-Identity
    -- Core network IEs
        cn-CommonGSM-MAP-NAS-SysInfo
                                        NAS-SystemInformationGSM-MAP,
```

```
cn-DomainInformationList
                                     CN-DomainInformationList
                                                                          OPTIONAL,
    -- Measurement IEs
       ongoingMeasRepList
                                       OngoingMeasRepList
                                                                          OPTIONAL,
    -- Radio bearer IEs
       predefinedConfigStatusList
                                     PredefinedConfigStatusList,
       srb-InformationList
                                      SRB-InformationSetupList,
       rab-InformationList
                                      RAB-InformationSetupList
                                                                          OPTIONAL,
    -- Transport channel IEs
                                     UL-CommonTransChInfo
       ul-CommonTransChInfo
                                                                          OPTIONAL,
       ul-TransChInfoList
                                       UL-AddReconfTransChInfoList
                                                                          OPTIONAL,
       modeSpecificInfo
                                       CHOICE {
                                           SEQUENCE {
           fdd
               cpch-SetID
                                               CPCH-SetID
                                                                          OPTIONAL.
               transChDRAC-Info
                                               DRAC-StaticInformationList OPTIONAL
           },
           tdd
                                          NULL
       dl-CommonTransChInfo
                                     DL-CommonTransChInfo
                                                                          OPTIONAL,
       dl-TransChInfoList
                                      DL-AddReconfTransChInfoList
                                                                          OPTIONAL,
    -- Measurement report
       measurementReport
                                                                          OPTIONAL
                                      MeasurementReport
}
SRNC-RelocationInfo-v380ext-IEs ::= SEQUENCE {
    -- Ciphering related information IEs
                                           CN-DomainIdentity,
       cn-DomainIdentity
       cipheringStatusList
                                          CipheringStatusList
}
SRNC-RelocationInfo-v390ext-IEs ::= SEQUENCE {
       cn-DomainInformationList-v390ext CN-DomainInformationList-v390ext
                                                                                  OPTIONAL,
       ue-RadioAccessCapability-v380ext UE-RadioAccessCapability-v380ext,

DL-PhysChCapabilityFDD-v380ext,
       ue-RadioAccessCapability-v370ext
                                          UE-RadioAccessCapability-v370ext
                                                                                  OPTIONAL,
       ue-RadioAccessCapability....
dl-PhysChCapabilityFDD-v380ext
DL-PhysChCapability...
FailureCauseWithProtErr
                                          UE-RadioAccessCapability-v380ext
                                                                                  OPTIONAL,
                                                                                  OPTIONAL
}
SRNC-RelocationInfo-v3a0ext-IEs ::= SEQUENCE{
       CipheringInfoPerRB-List-v3a0ext ::= SEQUENCE{
       dl-UM-SN
                                       BIT STRING(7)
```

14.12.4.2 SRNS RELOCATION INFO

This RRC message is sent between network nodes when preparing for an SRNS relocation.

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
Non RRC les				
>State of RRC	MP		RRC state indicator, 10.3.3.10	
>State of RRC procedure	MP		Enumerated (await no RRC message, Complete, await RB Setup Complete, await RB Reconfigurat ion Complete, await RB Release Complete, await TRB	

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
Nume			CH Reconfigurat ion Complete, await Physical CH Reconfigurat ion Complete, await Active Set Update Complete, await Handover Complete, send Cell Update Confirm, send URA Update Confirm, , others)	
Ciphering related information			, otners)	
>Ciphering status for each CN domain	MP	<1 to maxCNDo mains>		
>>CN domain identity	MP		CN domain identity 10.3.1.1	
>>Ciphering status	MP		Enumerated(Not started, Started)	
>Latest configured CN domain	MP		CN domain identity 10.3.1.1	Value contained in the variable of the same name.
>Calculation time for ciphering related information	CV- Ciphering			Time when the ciphering information of the message were calculated, relative to a cell of the target RNC
>>Cell Identity	MP		Cell Identity 10.3.2.2	Identity of one of the cells under the target RNC and included in the active set of the current call
>>SFN	MP		Integer(040 95)	
>COUNT-C list	CV- Ciphering	1 to <maxcndo mains></maxcndo 		COUNT-C values for radio bearers using transparent mode RLC
>>CN domain identity	MP		CN domain identity 10.3.1.1	
>>COUNT-C	MP		Bit string(32)	
>Ciphering info per radio bearer	OP	1 to <maxrb></maxrb>		For signalling radio bearers this IE is mandatory.
>>RB identity	MP		RB identity 10.3.4.16	
>>Downlink HFN	MP		Bit string(2025)	This IE is either RLC AM HFN (20 bits) or RLC UM HFN (25 bits)
>>Downlink SN	CV-SRB1		Bit String(7)	VT(US) of RLC UM
>>Uplink HFN	MP		Bit string(2025	This IE is either RLC AM HFN (20 bits) or RLC UM HFN (25 bits)

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
Integrity protection related information				
>Integrity protection status	MP		Enumerated(Not started, Started)	
>Signalling radio bearer specific integrity protection information	CV-IP	4 to <maxsrbs etup></maxsrbs 		
>>Uplink RRC HFN	MP		Bit string (28)	
>>Downlink RRC HFN	MP		Bit string (28)	
>>Uplink RRC Message sequence number	MP		Integer (0 15)	
>>Downlink RRC Message sequence number	MP		Integer (0 15)	
>Implementation specific parameters	OP		Bit string (1512)	
RRC IEs			(**************************************	
UE Information elements				
>U-RNTI	MP		U-RNTI 10.3.3.47	
>C-RNTI	OP		C-RNTI 10.3.3.8	
>UE radio access Capability	MP		UE radio access	
			capability 10.3.3.42	
>UE radio access capability	OP		UE radio	
extension	OP		access	
			capability extension	
. Look known LIC position	OD		10.3.3.42a	
>Last known UE position >>SFN	OP MP		Intogor	Time when position was
			Integer (04095)	estimated
>>Cell ID	MP		Cell identity; 10.3.2.2	Indicates the cell, the SFN is valid for.
>>CHOICE Position estimate	MP			
>>>Ellipsoid Point			Ellipsoid Point;	
			10.3.8.4a	
>>>Ellipsoid point with			Ellipsoid	
uncertainty circle			point with	
			uncertainty	
			circle	
>>>Ellipsoid point with			10.3.8.4d Ellipsoid	
uncertainty ellipse			point with	
uncertainty empse			uncertainty	
			ellipse	
			10.3.8.4e	
>>>Ellipsoid point with altitude			Ellipsoid	
•			point with	
			altitude	
			10.3.8.4b	
>>>Ellipsoid point with altitude			Ellipsoid	
and uncertainty ellipsoid			point with	
			altitude and	
			uncertainty	
			ellipsoid 10.3.8.4c	
Other Information elements		1	10.0.0.70	
>UE system specific capability	OP	1 to		
	J	<maxsyste< td=""><td></td><td></td></maxsyste<>		

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
		mCapabilit y>		
>>Inter-RAT UE radio access capability	MP	y	Inter-RAT UE radio access capability 10.3.8.7	
UTRAN Mobility Information elements				
>URA Identifier	OP		URA identity	
CN Information Elements			10.3.2.6	
>CN common GSM-MAP NAS system information	MP		NAS system information (GSM-MAP) 10.3.1.9	
>CN domain related information	OP	1 to <maxcndo mains></maxcndo 		CN related information to be provided for each CN domain
>>CN domain identity	MP			
>>CN domain specific GSM- MAP NAS system info	MP		NAS system information (GSM-MAP) 10.3.1.9	
>>CN domain specific DRX cycle length coefficient	MP		CN domain specific DRX cycle length coefficient, 10.3.3.6	
Measurement Related Information elements				
>For each ongoing measurement reporting	OP	1 to <maxnoof Meas></maxnoof 		
>>Measurement Identity	MP		Measuremen t identity 10.3.7.48	
>>Measurement Command	MP		Measuremen t command 10.3.7.46	
>>Measurement Type	CV-Setup		Measuremen t type 10.3.7.50	
>>Measurement Reporting Mode	OP		Measuremen t reporting mode 10.3.7.49	
>>Additional Measurements list	OP		Additional measuremen ts list 10.3.7.1	
>>CHOICE Measurement	OP			
>>>Intra-frequency >>>>Intra-frequency cell info	OP		Intra-	
>>>>Intra-frequency centino	OF		frequency cell info list 10.3.7.33	
>>>>Intra-frequency measurement quantity	OP		Intra- frequency measuremen t quantity 10.3.7.38	
>>>>Intra-frequency reporting quantity	OP		Intra- frequency reporting	

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
			quantity 10.3.7.41	
>>>Reporting cell status	ОР		Reporting cell status 10.3.7.61	
>>>>Measurement validity	ОР		Measuremen t validity 10.3.7.51	
>>>CHOICE report criteria	OP		10.0.1.01	
>>>>Intra-frequency measurement reporting criteria			Intra- frequency measuremen t reporting criteria 10.3.7.39	
>>>>Periodical reporting			Periodical reporting criteria 10.3.7.53	
>>>>No reporting			NULL	
>>>Inter-frequency	OP		Intor	
>>>Inter-frequency cell info	ОР		Inter- frequency cell info list 10.3.7.13	
>>>Inter-frequency measurement quantity	OP		Inter- frequency measuremen t quantity 10.3.7.18	
>>>>Inter-frequency reporting quantity	OP		Inter- frequency reporting quantity 10.3.7.21	
>>>Reporting cell status	OP		Reporting cell status 10.3.7.61	
>>>Measurement validity	OP		Measuremen t validity 10.3.7.51	
>>>>CHOICE report criteria	OP			
>>>>Inter-frequency measurement reporting criteria			Inter- frequency measuremen t reporting criteria 10.3.7.19	
>>>>Periodical reporting			Periodical reporting criteria 10.3.7.53	
>>>>No reporting >>>Inter-RAT	1		NULL	
>>>Inter-RAT >>>>Inter-RAT cell info	OP		Inter-RAT cell info list 10.3.7.23	
>>>Inter-RAT measurement quantity	OP		Inter-RAT measuremen t quantity 10.3.7.29	
>>>Inter-RAT reporting quantity	OP		Inter-RAT reporting quantity 10.3.7.32	

>>>>Reporting cell status OP Reporting cell status 10.3.7.61 >>>>Measurement validity 10.3.7.61 >>>>>CHOICE report criteria >>>>>Periodical reporting criteria >>>>>Traffic volume Traffic volume Measurement OP Traffic volume Measurement Traffic volume Measurement Traffic volume Traffic volume Traffic volume Traffic volume Traffic volume Traffic volume Measurement Traffic volume Traffic volume Measurement Traffic volume Measurement Traffic volume Traffic volume Measurement Traffic volume Traffic volume Traffic volume Measurement Traffic volume Traffic	Information Element/Group Name	Need	Multi	Type and reference	Semantics description
cell status 10.3.7.61 10.3.7.61 10.3.7.61 10.3.7.61 10.3.7.61 10.3.7.61 10.3.7.61 10.3.7.61 10.3.7.61 10.3.7.61 10.3.7.61 10.3.7.61 10.3.7.61 10.3.7.61 10.3.7.61 10.3.7.61 10.3.7.61 10.3.7.61 10.3.7.7.61 10.3.7.7.61 10.3.7.7.61 10.3.7.7.61 10.3.7.7.61 10.3.7.7.61 10.3.7.7.61 10.3.7.7.61 10.3.7.7.61 10.3.7.7.61 10.3.7.7.7 10.3.7.7 10.3.7 10.3.7.7 10.3.7		OP			
>>>Measurement validity >>>>CHOICE report criteria >>>>Sheart Treasurement reporting criteria >>>>>Periodical reporting >>>>No reporting >>>>Traffic Volume measurement quantity >>>>>Traffic volume reporting quantity >>>>>Traffic volume measurement quantity >>>>>Traffic volume Traffic volume measurement quantity >>>>>Traffic volume Traffic volume Traffic volume measurement quantity >>>>>Traffic volume Traffic volume measurement quantity >>>>>Traffic volume measurement quantity ->>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	3 11 11111				
1 validity 10.3.7.51					
t validity 10.3.7.51	>>>Measurement validity	OP			
10.3.7.51					
>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>					
>>>> Inter-RAT measurement reporting criteria 10.3.7.30 >>>>> Periodical reporting Periodical reporting criteria 10.3.7.30 >>>>> No reporting Periodical reporting criteria 10.3.7.53 >>>>> Traffic Volume Periodical reporting Periodical reporting criteria 10.3.7.53 >>>> Traffic volume Periodical reporting Periodical Periodical Periodical Periodical Periodical Periodical Periodical P	>>>>CHOICE report criteria	OP			
reporting criteria measuremen t reporting criteria 10.3.7.30 10.3.7.70 10.3.7.70 10.3.7.70 10.3.7.70 10.3.7.70 10.3.7.70 10.3.7.70 10.3.7.71 10.3.7.71 10.3.7.71 10.3.7.71 10.3.7.71 10.3.7.71 10.3.7.71 10.3.7.71 10.3.7.71 10.3.7.71 10.3.7.71 10.3.7.72 10.3.7.72 10.3.7.72 10.3.7.72 10.3.7.72 10.3.7.72 10.3.7.72 10.3.7.72 10.3.7.72 10.3.7.72 10.3.7.72 10.3.7.72 10.3.7.72 10.3.7.72 10.3.7.72 10.3.7.72 10.3.7.73 10.3.7.72 10.3.7.73 10.3.7.72 10.3.7.73		+		Inter-RAT	
treporting criteria 10.3.7.30 >>>>Periodical reporting Periodical reporting criteria 10.3.7.53 >>>>Traffic Volume >>>>Traffic volume measurement quantity >>>>Traffic volume measurement of topic to volume measurement quantity >>>>Traffic volume measurement quantity >>>>Traffic volume measurement quantity >>>>Traffic volume measurement quantity >>>>Traffic volume measurement quantity >>>>>Traffic volume measurement quantity >>>>>Traffic volume reporting quantity >>>>>Traffic volume reporting quantity >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>					
Criteria 10.3.7.30	roporting officina				
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10.3.7.53					
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>>>> Traffic volume measurement Object volume measurement tobject 10.3.7.70 >>>> Traffic volume measurement tobject 10.3.7.70 >>>> Traffic volume measurement quantity 10.3.7.71 >>>> Traffic volume reporting quantity 10.3.7.71 >>>> Traffic volume reporting quantity 10.3.7.74 >>>> Traffic volume reporting quantity 10.3.7.74 >>>>> Traffic volume reporting quantity 10.3.7.74 >>>>> Traffic volume measurement reporting criteria 10.3.7.72 >>>>> Periodical reporting Periodical reporting criteria 10.3.7.72 >>>>> No reporting Periodical reporting reporting criteria 10.3.7.53 >>>> No reporting Periodical reporting Periodical reporting criteria 10.3.7.53 >>>> No reporting Periodical reporting Periodical reporting reporting criteria 10.3.7.53 >>>> No reporting Periodical reporting Periodical reporting reporting criteria 10.3.7.53 >>>> Periodical reporting Periodical reporting reporting criteria 10.3.7.58 >>>> CHOICE report criteria Periodical reporting criteria 10.3.7.58 >>>> Periodical reporting Periodical reporting criteria 10.3.7.53	>>>>No reporting			NULL	
measurement Object Object Object >>>>Traffic volume measurement quantity >>>>Traffic volume measuremen t quantity >>>>Traffic volume reporting quantity >>>>Traffic volume reporting quantity >>>>CHOICE report criteria >>>>>Periodical reporting >>>>No reporting >>>>CHOICE report criteria OP Traffic volume reporting criteria 10.3.7.74 >>>>>Periodical reporting rotiteria >>>>>No reporting >>>>CHOICE report criteria OP Quality >>>>>No reporting Periodical reporting rotiteria 10.3.7.53 >>>>>>Quality >>>>CHOICE report criteria OP Quality >>>>>CHOICE report criteria 10.3.7.53 >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>					
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t object 10.3.7.70				volume	
10.3.7.70	Object			measuremen	
>>>>Traffic volume measurement quantity				t object	
>>>>Traffic volume measurement quantity					
measurement quantity Second Periodical reporting quantity	>>>>Traffic volume	OP			
quantity >>>>Traffic volume reporting quantity >>>>CP Traffic volume reporting quantity >>>>CHOICE report criteria >>>>>Traffic volume measurement reporting quantity >>>>Periodical reporting >>>>No reporting >>>>CHOICE report criteria					
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reporting quantity 10.3.7.74 >>>>CHOICE report criteria >>>>Traffic volume measurement reporting criteria		OF			
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>>>>CHOICE report criteria >>>>>Traffic volume measurement reporting criteria >>>>Periodical reporting >>>> Null >>>>CHOICE report criteria >>>>> Null >>>> Quality measurement topict >>>> Quality measurement reporting criteria 10.3.7.53 >>>> Quality measurement reporting criteria 10.3.7.53 >>>> Periodical reporting >>>> Quality measurement OP Quality measurement reporting criteria 10.3.7.58 >>>> Periodical reporting >>>> Quality measurement reporting criteria 10.3.7.58 >>>> Periodical reporting >>>> Quality measurement reporting criteria 10.3.7.58 >>>> Periodical reporting >>>> Periodical reporting criteria 10.3.7.58 >>>> Periodical reporting criteria 10.3.7.53 >>>> NULL >>>> NULL >>> UE internal measuremen t quantity UE internal measuremen t quantity					
>>>>CHOICE report criteria >>>>Traffic volume measurement reporting criteria					
>>>>Traffic volume measurement reporting criteria >>>>>Periodical reporting criteria >>>>No reporting >>>>Quality >>>>CHOICE report criteria >>>>>Quality measurement reporting criteria >>>>>Quality measurement reporting measuremen reporting criteria >>>>>Periodical reporting criteria 10.3.7.53 >>>>>No reporting AULL >>>>Quality >>>>CHOICE report criteria >>>>>CHOICE report criteria >>>>>Periodical reporting criteria 10.3.7.58 >>>>>Periodical reporting criteria 10.3.7.58 >>>>>Periodical reporting criteria 10.3.7.58 >>>>>Periodical reporting criteria 10.3.7.53 >>>>>No reporting Periodical reporting criteria 10.3.7.53 >>>>>No reporting Periodical reporting criteria 10.3.7.53 >>>>>No reporting NULL >>>UE internal >>>UE internal measuremen t quantity				10.3.7.74	
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t quantity					
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				10.3.7.79	

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
>>>UE internal reporting	OP		UE internal	
quantity			reporting	
			quantity	
			10.3.7.82	
>>>>CHOICE report criteria	OP			
>>>>UE internal measurement			UE internal	
reporting criteria			measuremen	
			t reporting	
			criteria	
Davis disal varianting			10.3.7.80 Periodical	
>>>>Periodical reporting				
			reporting criteria	
			10.3.7.53	
>>>>No reporting			NULL	
>>UE positioning			INOLL	
>>>LCS reporting quantity	OP		LCS	
>>>LCS reporting quantity	Oi		reporting	
			quantity	
			10.3.7.111	
>>>CHOICE report criteria	OP			
>>>>LCS reporting criteria	1		LCS	
and the second second			reporting	
			criteria	
			10.3.7.110	
>>>>Periodical reporting			Periodical	
			reporting	
			criteria	
			10.3.7.53	
>>>>No reporting				
Radio Bearer Information				
Elements				
>Pre-defined configuration	OP		Pre-defined	
status information			configuration	
			status	
			information 14.13.2.3	
>Signalling RB information list	MP	1 to	14.13.2.3	For each signalling radio
25 Ignaming NB information list	IVII	<maxsrbs< td=""><td></td><td>bearer</td></maxsrbs<>		bearer
		etup>		bearer
>>Signalling RB information	MP	otup:	Signalling	
and the second s			RB	
			information	
			to setup	
			10.3.4.24	
>RAB information list	OP	1 to		Information for each RAB
		<maxrabs< td=""><td></td><td></td></maxrabs<>		
	1	etup>		
>>RAB information	MP		RAB	
			information	
			to setup	
Transport Charge	1		10.3.4.10	
Transport Channel Information Elements				
Uplink transport channels	+			
>UL Transport channel	OP		UL Transport	
information common for all			channel	
transport channels			information	
a a roport orial molo			common for	
			all transport	
			channels	
			10.3.5.24	
>UL transport channel	OP	1 to		
information list		<maxtrch< td=""><td></td><td></td></maxtrch<>		
		i	Ī	İ

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
>>UL transport channel information	MP		Added or reconfigured UL TrCH information 10.3.5.2	
>CHOICE mode	OP			
>>FDD				
>>>CPCH set ID	OP		CPCH set ID 10.3.5.5	
>>>Transport channel information for DRAC list	OP	1 to <maxtrch ></maxtrch 		
>>>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	
>DL transport channel information list	OP	1 to <maxtrch ></maxtrch 		
>>DL transport channel information	MP		Added or reconfigured DL TrCH information 10.3.5.1	
>Measurement report	OP		MEASUREM ENT REPORT 10.2.17	
Other Information elements				
Failure cause	OP		Failure cause 10.3.3.13	Diagnostics information related to an earlier SRNC Relocation request (see NOTE 2 in 14.12.0a)
Protocol error information	CV-ProtErr		Protocol error information 10.3.8.12	

Multi Bound	Explanation					
MaxNoOfMeas	Maximum number of active measurements, upper					
	limit 16					

Condition	Explanation
Setup	The IE is mandatory present when the IE Measurement command has the value "Setup", otherwise the IE is not needed.
Ciphering	The IE is mandatory present when the IE Ciphering Status has the value "started" and the ciphering counters need not be reinitialised, otherwise the IE is not needed.
IP	The IE is mandatory present when the IE Integrity protection status has the value "started" and the integrity protection counters need not be reinitialised, otherwise the IE is not needed.
ProtErr	This IE is mandatory present if the IE "Protocol error indicator" is included and has the value "TRUE". Otherwise it is not needed.
SRB1	The IE is mandatory present for the SRB #1. Otherwise it is not needed.

CHANGE REQUEST													
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Proposed change affects: (U)SIM ME/UE X Radio Access Network X Core Network ■													
Title:	₩	Co	rrection	n to UE	Id for D	SCH							
Source:	H	TS	G-RAN	WG2									
Work iter	n code: #	TE	I							Date: 3	g 21	Feb 2002	
Category Reason for		Use Deta be fo	F (con A (cor B (add C (fun D (edi iiled exp bund in Acco trans for D	rection) respond respond dition of ctional I torial m blanatio 3GPP 1	feature), modification ns of the FR 21.900 the MA nannel a	ion of f n) above <u>0</u> . AC spend the	eature) categoric ecification	n (TS	25.3 ecifie	2 e) R96 R97 R98 R99 REL-4 REL-5 321), the DS0 d that the U-	f the for (GSM) (Relative (Relative) (Relati	ollowing release 1996) ease 1997) ease 1998) ease 1999) ease 4) ease 5) ease onmon is used on e of DTCH	ly in DL mapped
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Other co	nments:	ж											

How to create CRs using this form:

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

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

8.2.2.3 Reception of RADIO BEARER SETUP or RADIO BEARER RECONFIGURATION or RADIO BEARER RELEASE or TRANSPORT CHANNEL RECONFIGURATION or PHYSICAL CHANNEL RECONFIGURATION message by the UE

The UE shall be able to receive any of the following messages:

- RADIO BEARER SETUP message; or
- RADIO BEARER RECONFIGURATION message; or
- RADIO BEARER RELEASE message; or
- TRANSPORT CHANNEL RECONFIGURATION message; or
- PHYSICAL CHANNEL RECONFIGURATION message;

and perform a hard handover, even if no prior UE measurements have been performed on the target cell and/or frequency.

If the UE receives:

- a RADIO BEARER SETUP message; or
- a RADIO BEARER RECONFIGURATION message; or
- a RADIO BEARER RELEASE message; or
- a TRANSPORT CHANNEL RECONFIGURATION message; or
- a PHYSICAL CHANNEL RECONFIGURATION message:

it shall:

- set the variable ORDERED_RECONFIGURATION to TRUE;
- perform the physical layer synchronisation procedure as specified in [29];
- act upon all received information elements as specified in subclause 8.6, unless specified in the following and perform the actions below.

The UE may first release the physical channel configuration used at reception of the reconfiguration message. The UE shall then:

- in FDD, if the IE "PDSCH code mapping" is included but the IE "PDSCH with SHO DCH Info" is not included and if the DCH has only one link in its active set:
 - act upon the IE "PDSCH code mapping" as specified in subclause 8.6; and
 - infer that the PDSCH will be transmitted from the cell from which the downlink DPCH is transmitted.
- enter a state according to subclause 8.6.3.3.

In case the UE receives a RADIO BEARER RECONFIGURATION message including the IE "RB information to reconfigure" that only includes the IE "RB identity", the UE shall:

- handle the message as if IE "RB information to reconfigure" was absent.

NOTE: The RADIO BEARER RECONFIGURATION message always includes the IE "RB information to reconfigure". UTRAN has to include it even if it does not require the reconfiguration of any RB.

If after state transition the UE enters CELL_DCH state, the UE shall, after the state transition:

- remove any C-RNTI from MAC;
- clear the variable C_RNTI.

In FDD, if after state transition the UE leaves CELL_DCH state, the UE shall, after the state transition:

- remove any DSCH-RNTI from MAC;
- clear the variable DSCH RNTI.

If the UE was in CELL_DCH state upon reception of the reconfiguration message and remains in CELL_DCH state, the UE shall:

- if the IE "Uplink DPCH Info" is absent, not change its current UL Physical channel configuration;
- if the IE "Downlink information for each radio link" is absent, not change its current DL Physical channel configuration.

If after state transition the UE enters CELL_FACH state, the UE shall, after the state transition:

- if the IE "Frequency info" is included in the received reconfiguration message:
 - select a suitable UTRA cell according to [4] on that frequency.
- if the IE "Frequency info" is not included in the received reconfiguration message:
 - select a suitable UTRA cell according to [4].
- if the received reconfiguration message included the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD), and the UE selects another cell than indicated by this IE or the received reconfiguration message did not include the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD):
 - initiate a cell update procedure according to subclause 8.3.1 using the cause "Cell reselection";
 - when the cell update procedure completed successfully:
 - if the UE is in CELL_PCH or URA_PCH state:
 - initiate a cell update procedure according to subclause 8.3.1 using the cause "Uplink data transmission";
 - proceed as below.
- start timer T305 using its initial value if timer T305 is not running and if periodical update has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity" in system information block type 1;
- select PRACH according to subclause 8.5.17;
- select Secondary CCPCH according to subclause 8.5.19;
- use the transport format set given in system information;
- if the IE "UTRAN DRX cycle length coefficient" is included in the same message:
 - ignore that IE and stop using DRX.
- if the contents of the variable C_RNTI is empty:
 - perform a cell update procedure according to subclause 8.3.1 using the cause "Cell reselection";
 - when the cell update procedure completed successfully:
 - if the UE is in CELL_PCH or URA_PCH state:
 - initiate a cell update procedure according to subclause 8.3.1 using the cause "Uplink data transmission";
 - proceed as below.

If the UE was in CELL_FACH state upon reception of the reconfiguration message and remains in CELL_FACH state, the UE shall:

- if the IE "Frequency info" is included in the received reconfiguration message:
 - select a suitable UTRA cell according to [4] on that frequency;
 - if the received reconfiguration message included the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD), and the UE selected another cell than indicated by this IE or the received reconfiguration message did not include the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD):
 - initiate a cell update procedure according to subclause 8.3.1 using the cause "cell reselection";
 - when the cell update procedure completed successfully:
 - proceed as below.

The UE shall transmit a response message as specified in subclause 8.2.2.4, setting the information elements as specified below. The UE shall:

- if the received reconfiguration message included the IE "Downlink counter synchronisation info":
 - re-establish RB2;
 - set the new uplink and downlink HFN of RB2 to MAX(uplink HFN of RB2 | downlink HFN of RB2) + 1;
 - increment by one the downlink and uplink HFN values for RB2;
 - calculate the START value according to subclause 8.5.9;
 - include the calculated START values for each CN domain in the IE "START list" in the IE "Uplink counter synchronisation info".
- if the received reconfiguration message did not include the IE "Downlink counter synchronisation info":
 - if the variable START_VALUE_TO_TRANSMIT is set:
 - include and set the IE "START" to the value of that variable.
 - if the variable START_VALUE_TO_TRANSMIT is not set and the IE "New U-RNTI" is included:
 - calculate the START value according to subclause 8.5.9;
 - include the calculated START values for each CN domain in the IE "START list" in the IE "Uplink counter synchronisation info".
- if the received reconfiguration message contained the IE "Ciphering mode info":
 - include and set the IE "Radio bearer uplink ciphering activation time info" to the value of the variable RB_UPLINK_CIPHERING_ACTIVATION_TIME_INFO.
- if the received reconfiguration message contained the IE "Integrity protection mode info" with the IE "Integrity protection mode command" set to "Modify":
 - include and set the IE "Uplink integrity protection activation info" to the value of the variable INTEGRITY PROTECTION ACTIVATION INFO.
- if the received reconfiguration message did not contain the IE "Ciphering activation time for DPCH" in IE "Ciphering mode info":
 - if prior to this procedure there exist no transparent mode RLC radio bearers:
 - if, at the conclusion of this procedure, the UE will be in CELL_DCH state; and
 - if, at the conclusion of this procedure, at least one transparent mode RLC radio bearer exists:
 - include the IE "COUNT-C activation time" and specify a CFN value for this IE.
 - if prior to this procedure there exists at least one transparent mode RLC radio bearer:

- if, at the conclusion of this procedure, no transparent mode RLC radio bearers exist:
 - include the IE "COUNT-C activation time" and specify a CFN value for this IE.
- set the IE "RRC transaction identifier" to the value of "RRC transaction identifier" in the entry for the received message in the table "Accepted transactions" in the variable TRANSACTIONS; and
- clear that entry;
- if the variable PDCP_SN_INFO is not empty:
 - include the IE "RB with PDCP information list" and set it to the value of the variable PDCP_SN_INFO.
- in TDD, if the procedure is used to perform a handover to a cell where timing advance is enabled, and the UE can calculate the timing advance value in the new cell (i.e. in a synchronous TDD network):
 - set the IE "Uplink Timing Advance" according to subclause 8.6.6.26.
- if the IE "Integrity protection mode info" was present in the received reconfiguration message:
 - start applying the new integrity protection configuration in the uplink for signalling radio bearer RB2 from and including the transmitted response message.

If after state transition the UE enters CELL_PCH or URA_PCH state, the UE shall, after the state transition and transmission of the response message:

- if the IE "Frequency info" is included in the received reconfiguration message:
 - select a suitable UTRA cell according to [4] on that frequency.
- if the IE "Frequency info" is not included in the received reconfiguration message:
 - select a suitable UTRA cell according to [4].
- prohibit periodical status transmission in RLC;
- remove any C-RNTI from MAC;
- clear the variable C_RNTI;
- start timer T305 using its initial value if timer T305 is not running and if periodical update has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity" in system information block type 1;
- select Secondary CCPCH according to subclause 8.5.19;
- if the IE "UTRAN DRX cycle length coefficient" is included in the same message:
 - 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.
- if the IE "UTRAN DRX cycle length coefficient" is not included in the same message:
 - set the variable INVALID_CONFIGURATION to TRUE.
- if the UE enters CELL_PCH state from CELL_DCH state, and the received reconfiguration message included the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD), and the UE selected another cell than indicated by this IE or the received reconfiguration message did not include the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD):
 - initiate a cell update procedure according to subclause 8.3.1 using the cause "cell reselection";
 - when the cell update procedure completed successfully:
 - the procedure ends.

- if the UE enters CELL_PCH state from CELL_FACH state, and the received reconfiguration message included the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD), and the UE selected another cell than indicated by this IE:
 - initiate a cell update procedure according to subclause 8.3.1 using the cause "cell reselection";
 - when the cell update procedure is successfully completed:
 - the procedure ends.
- if the UE enters URA_PCH state, and after cell selection the criteria for URA update caused by "URA reselection" according to subclause 8.3.1 is fulfilled:
 - initiate a URA update procedure according to subclause 8.3.1 using the cause "URA reselection";
 - when the URA update procedure is successfully completed:
 - the procedure ends.

8.2.7.3 Reception of a PHYSICAL SHARED CHANNEL ALLOCATION message by the UE

Upon reception of a "PHYSICAL SHARED CHANNEL ALLOCATION" message, if the message is received on the downlink SHCCH the UE shall:

- check the DSCH-RNTI C RNTI to see if the UE is addressed by the message;
- if the UE is addressed by the message, or if the message is received on the downlink DCCH:
 - perform the following actions.
- otherwise:
 - ignore the message.
- act upon all received information elements as specified in subclause 8.6, unless specified otherwise in the following:
- if the IE "ISCP Timeslot list" is included:
 - store the timeslot numbers given there for future Timeslot ISCP measurements and reports.
- if the IE "PDSCH capacity allocation info" is included:
 - configure the physical resources used for the downlink CCTrCH given by the IE "TFCS ID" according to the following:
 - if the CHOICE "Configuration" has the value "Old configuration":
 - if the UE has stored a PDSCH configuration with the identity given by the IE "PDSCH Identity":
 - configure the physical resources according to that configuration.
 - otherwise:
 - ignore the IE "PDSCH capacity allocation info".
 - if the CHOICE "Configuration" has the value "New configuration":
 - configure the physical resources according to the information given in IE "PDSCH Info". If IE
 "Common timeslot info" or IE "PDSCH timeslots and codes" IE are not present in IE "PDSCH Info":
 - reuse the configuration specified in the previous "PHYSICAL SHARED CHANNEL ALLOCATION" message for this CCTrCH.
 - if the IE "PDSCH Identity" is included:

- store the new configuration using that identity.
- start using the new configuration at the CFN specified by the IE "Allocation activation time", and use that for the duration given by the IE "Allocation duration";
- if the IE "Confirm request" has the value "Confirm PDSCH" and IE "PDSCH Identity" is included in IE "PDSCH capacity allocation info":
 - initiate the PUSCH CAPACITY REQUEST procedure as described in subclause 8.2.8.
- if the IE "PUSCH capacity allocation info" is included:
- stop the timer T310, if running;
- if the CHOICE "PUSCH allocation" has the value "PUSCH allocation pending":
 - start the timer T311.
- if the CHOICE "PUSCH allocation" has the value "PUSCH allocation assignment":
 - stop the timer T311, if running;
 - configure the physical resources used for the uplink CCTrCH given by the IE "TFCS ID" according to the following:
 - if the CHOICE "Configuration" has the value "Old configuration":
 - if the UE has stored a PUSCH configuration with the identity given by the IE "PUSCH Identity":
 - configure the physical resources according to that configuration.
 - otherwise:
 - ignore the IE "PUSCH capacity allocation info".
 - if the CHOICE "Configuration" has the value "New configuration", the UE shall:
 - configure the physical resources according to the information given in IE "PUSCH Info". If IE "Common timeslot info" or IE "PUSCH timeslots and codes" is not present in IE "PUSCH Info":
 - reuse the configuration specified in the previous "PHYSICAL SHARED CHANNEL ALLOCATION" message for this CCTrCH.
 - if the IE "PUSCH Identity" is included:
 - store the new configuration using that identity.
 - start using the new configuration at the CFN specified by the IE "Allocation activation time", and use that for the duration given by the IE "Allocation duration";
 - if the IE "Traffic volume report request " is included:
 - initiate the PUSCH CAPACITY REQUEST procedure as described in subclause 8.2.8 at the time indicated by the IE "Traffic volume report request".
 - if the IE "Confirm request" has the value "Confirm PUSCH" and IE "PUSCH Identity" is included in IE "PUSCH capacity allocation info":
 - initiate the PUSCH CAPACITY REQUEST procedure as described in subclause 8.2.8.
- determine the TFCS subset and hence the TFCI values which are possible given the PUSCH allocation for that CCTrCH;
- configure the MAC-c/sh in the UE with this TFCS restriction if necessary;
- transmit USCH Transport Block Sets as required, within the TFCS limits given by the PUSCH allocation.

NOTE: If the UE has just entered a new cell and System Information Block Type 6has not yet been scheduled, PUSCH/PDSCH information should be specified in the allocation message.

The UE shall:

- clear the entry for the PHYSICAL SHARED CHANNEL ALLOCATION message in the table "Accepted transactions" in the variable TRANSACTIONS:
- and the procedure ends.

8.6.3.9 New C-RNTI

If the IE "New C-RNTI" is included, the UE shall:

- store the value in the variable C_RNTI, replacing any old stored value;
- use that C-RNTI when using common transport channels of type RACH, FACH and CPCH in the current cell.

8.6.3.9a New DSCH-RNTI

If the IE "New DSCH-RNTI" is included, the UE shall:

- In FDD, if the UE will be in CELL DCH at the end of the procedure where the received message included this IE, and
- if the UE supports DSCH as indicated in the IE "Physical Channel Capability" included in the IE "UE Radio Access Cabability":
 - store the value in the variable DSCH_RNTI, replacing any old stored value;
 - use that DSCH-RNTI when using common transport channels of type DSCH in the current cell.
- In TDD, if the UE will be in CELL DCH or CELL FACH at the end of the procedure where the received message included this IE, and
- if the UE supports DSCH or USCH as indicated in the IE "Physical Channel Capability" included in the IE "UE Radio Access Cabability":
 - store the value in the variable DSCH_RNTI, replacing any old stored value;
 - use that DSCH-RNTI when using SHCCH signalling in the current cell.

8.6.6.9 PDSCH with SHO DCH Info (FDD only)

If the IE "PDSCH with SHO DCH Info" is included, the UE shall:

- if the variable DSCH_RNTI is empty:
 - set the variable INVALID CONFIGURATION to TRUE;
- configure itself to receive the PDSCH from the specified radio link within the active set identified by the IE "DSCH radio link identifier";
- if the TFCI has a 'hard' split:
 - if the IE "TFCI(field2) combining set" is included:
 - configure the Layer 1 to combine soft only the DPCCH TFCI(field 2) of the radio links within the active set which are identified by the IE "Radio link identifier" in the IE "TFCI(field2) Combining set".
 - if the IE "TFCI(field2) combining set" is not included:
 - configure the L1 to combine soft the DPCCH TFCI(field 2) of all radio links within the active set.

8.6.6.10 PDSCH code mapping (FDD only)

If the IE "PDSCH code mapping" is included, the UE shall:

- if the variable DSCH_RNTI is empty:
 - set the variable INVALID_CONFIGURATION to TRUE;
- use the scrambling code defined by the IE "DL Scrambling Code" to receive the PDSCH;
- if the IE choice "signalling method" is set to 'code range':
 - map the TFCI(field2) values to PDSCH codes in the following way:
 - for the first group of the IE "PDSCH code mapping":
 - if the value of the IE "multi-code info" equals 1:
 - map the TFCI(field 2) = 0 to the PDSCH code specified by the IE "Spreading factor" and the code number given by the IE "Code number (for PDSCH code) start";
 - map TFCI(field 2) = 1 to the PDSCH code specified by the IE "Spreading factor" and the code number given by the IE "Code number (for PDSCH code) start"+1;
 - continue this process with unit increments in the value of TFCI(field 2) mapped to unit increments in code number until the code number equals the value of the IE "Code number (for PDSCH code) stop".
 - if the value of the IE "multi-code info" is greater than 1:
 - if the value of the difference between the IE "Code number (for PDSCH code) start" and the IE "Code number (for PDSCH code) stop" + 1 is not a multiple of the value of the IE "multi-code info":
 - set the variable INVALID CONFIGURATION to TRUE.
 - map TFCI (field 2)=0 to a set of PDSCH contiguous codes. This code set is specified by the IE "Spreading factor" and code numbers between 'code number start' denoted by the IE "Code number (for PDSCH code) start" and 'code number stop' given by IE "Code number (for PDSCH code) start" 1 + the value of the IE "multi-code info";
 - continue this process with unit increments in the value of TFCI(field 2) mapped to a set of contiguous codes. This code set is specified by the IE "Spreading factor" and code numbers between 'code number start' = 'code number stop' +1 of the previous TFCI(field2) and 'code number stop'='code number start' 1 + the value of the IE "multi-code info";
 - stop this process when the 'code number stop' associated to the last TFCI(field2) equals the value of the IE "Code number (for PDSCH code) stop".
 - for each of the next groups included in the IE "PDSCH code mapping":
 - continue the process in the same way as for the first group with the TFCI(field 2) value used by the UE to construct its mapping table starting at the largest TFCI(field 2) value reached in the previous group plus one
 - if the value of the IE "Code number (for PDSCH code) start" equals the value of the IE "Code number (for PDSCH code) stop" (as may occur when mapping the PDSCH root code to a TFCI (field 2) value):
 - consider this as defining the mapping between the channelisation code and a single TFCI (i.e., TFCI(field 2) shall not be incremented twice).
- if the IE choice "signalling method" is set to 'TFCI range':
 - map the TFCI(field2) values to PDSCH codes in the following way:
 - for the first group of the IE "DSCH mapping":

- map each of the TFCI(field 2) between 0 and the value of the IE "Max TFCI(field2)" to the PDSCH code specified by the IE "Spreading factor (for PDSCH code)" and the code number given by the IE "Code number (for PDSCH code)".
- for each of the next groups included in the IE "DSCH mapping":
 - map each of the TFCI(field 2) between the IE "Max TFCI(field2) value" specified in the last group plus one and the specified IE "Max TFCI(field2)" in the current group to the PDSCH code specified by the IE "Spreading factor (for PDSCH code)" and the code number given by the IE "Code number (for PDSCH code)".
- if the value of the IE "multi-code info" is greater than 1:
 - map each value of TFCI (field 2) to a set of PDSCH contiguous codes starting at the channelisation code denoted by the 'code number' parameter and including all codes with code numbers up to and including 'code number' - 1 + the value of the IE "multi-code info".
- if the IE choice "signalling method" is set to 'Explicit'
 - map the TFCI(field2) values to PDSCH codes in the following way:
 - for the first instance on the IE "PDSCH code info":
 - apply the PDSCH code specified by the IE "Spreading factor (for PDSCH code)" and the code number given by the IE "Code number (for PDSCH code)" for TFCI(field2)=0.
 - for the second instance of the IE "PDSCH code info":
 - apply the PDSCH code specified by the IE "Spreading factor (for PDSCH code)" and the code number given by the IE "Code number (for PDSCH code)" for TFCI(field2)=1.
 - continue in a similar way for each next instance of the IE "PDSCH code info";
 - if the value of the IE "multi-code info" is greater than 1, then
 - map each value of TFCI (field 2) to a set of PDSCH contiguous codes starting at the channelisation code denoted by the 'code number' parameter and including all codes with code numbers up to and including 'code number' 1 + the value of the IE "multi-code info".
- if the IE choice "signalling method" is set to 'Replace':
 - map the TFCI(field2) values to PDSCH codes in the following way:
 - for each instance of the IE "Replaced PDSCH code":
 - replace the corresponding PDSCH code for the TFCI(field2) identified by the IE "TFCI(field2)" with the new code specified by the IE "Spreading factor (for PDSCH code)" and the code number given by the IE "Code number (for PDSCH code)".
 - if the value of the IE "multi-code info" is greater than 1:
 - map each value of TFCI (field 2) to a set of PDSCH contiguous codes starting at the channelisation code denoted by the 'code number' parameter and including all codes with code numbers up to and including 'code number' 1 + the value of the IE "multi-code info".

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 Type	
UE Information Elements			Туре	
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	
Integrity protection mode info	OP		10.3.3.16	
integrity protection mode into	OP		Integrity protection	
			mode info	
			10.3.3.19	
Ciphering mode info	OP		Ciphering	
			mode info 10.3.3.5	
Activation time	MD		Activation	Default value is "now"
, tourador amo	2		time 10.3.3.1	Doladii valae le Hew
New U-RNTI	OP		U-RNTI	
			10.3.3.47	
New C-RNTI	OP		C-RNTI 10.3.3.8	
New DSCH-RNTI	<u>OP</u>		DSCH-RNTI	
New Boott Kivii	UI		10.3.3.8a	
RRC State Indicator	MP		RRC State	
			Indicator	
LITDAN DDV avala la sasth	OD		10.3.3.10	
UTRAN DRX cycle length coefficient	OP		UTRAN DRX cycle length	
Cocmoloni			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 info	OP		CN	
			Information	
			info 10.3.1.3	
UTRAN Information Elements	OD		LIDA idamtitu	
URA identity	OP		URA identity 10.3.2.6	
RB information elements			10.0.2.0	
RB information to release list	OP	1 to		
		<maxrb></maxrb>	1.5	
>RB information to release	MP		RB	
			information to release	
			10.3.4.19	
RB information to reconfigure list	OP	1 to		
DD información i di	MD	<maxrb></maxrb>	DD	
>RB information to reconfigure	MP		RB information	
			to	
			reconfigure	
			10.3.4.18	
RB information to be affected list	OP	1 to		
		<maxrb></maxrb>		

Information Element/Group name	Need	Multi	Type and reference	Semantics description
>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></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< 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 TrCH information	MP		Added or Reconfigure d UL TrCH information 10.3.5.2	
CHOICE mode	MP		10.0.0.2	
>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)
Downlink transport channels	OD		DI To	
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 ></maxtrch 		
>Deleted DL TrCH information	MP		Deleted DL TrCH information 10.3.5.4	
Added or Reconfigured TrCH	OP	1 to	-	

Information Element/Group name	Need	Multi	Type and reference	Semantics description
information list		<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			
>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.

10.2.22 PHYSICAL CHANNEL RECONFIGURATION

This message is used by UTRAN to assign, replace or release a set of physical channels used by a UE.

RLC-SAP: AM or UM Logical channel: DCCH Direction: UTRAN \rightarrow UE

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Message Type	MP		Message Type	

Information Element/Group name	Need	Multi	Type and reference	Semantics description
UE Information Elements			1010101100	
RRC transaction identifier	MP		RRC	
			transaction	
			identifier	
			10.3.3.36	
Integrity check info	CH		Integrity	
0 ,			check info	
			10.3.3.16	
Integrity protection mode info	OP		Integrity	
			protection	
			mode info	
			10.3.3.19	
Ciphering mode info	OP		Ciphering	
			mode info	
			10.3.3.5	
Activation time	MD		Activation	Default value is "now"
			time 10.3.3.1	
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	
			10.3.3.8a	
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	
CN Information Elements				
CN Information info	OP		CN	
			Information	
			info 10.3.1.3	
UTRAN mobility information				
elements				
URA identity	OP		URA identity	
			10.3.2.6	
RB information elements	0.5			
Downlink counter	OP			
synchronisation info				
>RB with PDCP information list	OP	1 to		This IE is needed for each RB
		<maxrball< td=""><td></td><td>having PDCP in the case of</td></maxrball<>		having PDCP in the case of
DD with DDOD inf	MD	RABs>	DD with	lossless SRNS relocation
>>RB with PDCP information	MP		RB with	
			PDCP	
			information	
PhyCU information alamanta			10.3.4.22	
PhyCH information elements	MD		Гиоличана	Default value is the suisting
Frequency info	MD		Frequency	Default value is the existing
			info	value of frequency information
Unlink radio recourses			10.3.6.36	
Uplink radio resources	MD		Movimum	Default value is the evicting
Maximum allowed UL TX power	MD		Maximum	Default value is the existing value of the maximum allowed
			allowed UL	
			TX power	UL TX power
CHOICE channel requirement	OP	+	10.3.6.39	
CHOICE channel requirement	OP		Unlink	
>Uplink DPCH info			Uplink DPCH info	
>CPCH SET Info	+	1	10.3.6.88 CPCH SET	
POPUR SET IIIIU			Info	
			10.3.6.13	
>CPCH set ID	+	+	CPCH set ID	
>OF OH 361 ID			OF OH SELID	

Information Element/Group name	Need	Multi	Type and reference	Semantics description
			10.3.5.3	
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
>Downlink information for each radio link	MP		Downlink information for each radio link 10.3.6.27	

10.2.25 PHYSICAL SHARED CHANNEL ALLOCATION

NOTE: Only for TDD.

This message is used by UTRAN to assign physical resources to USCH/DSCH transport channels in TDD, for temporary usage by the UE.

RLC-SAP: UM on SHCCH, UM on DCCH

Logical channel: SHCCH or DCCH

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Message Type	MP		Message	
			type	
C DSCH-RNTI	OP		CDSCH-	
			RNTI	
			10.3.3.8 <u>a</u>	
RRC transaction identifier	MP		RRC	
			transaction	
			identifier	
			10.3.3.36	
Uplink timing advance Control	MD		Uplink	Default value is the existing
			Timing	value for uplink timing advance
			Advance	
			Control	
			10.3.6.96	
PUSCH capacity allocation info	OP		PUSCH	
			Capacity	
			Allocation	
			info	
			10.3.6.64	
PDSCH capacity allocation info	OP		PDSCH	
			Capacity	
			Allocation	
			info	
	ļ.,_		10.3.6.42	
Confirm request	MD		Enumerated(Default value is No Confirm
			No Confirm,	

Information Element/Group	Need	Multi	Type and	Semantics description
name			reference Confirm PDSCH, Confirm PUSCH)	
Traffic volume report request	OP		Integer (0 255)	Indicates the number of frames between start of the allocation period and sending measurement report. The value should be less than the value for Allocation Duration.
ISCP Timeslot list	OP	1 to maxTS		
>Timeslot number	MP		Timeslot number 10.3.6.84	Timeslot numbers, for which the UE shall report the timeslot ISCP in PUSCH CAPACITY REQUEST message.
Request P-CCPCH RSCP	MP		Boolean	TRUE indicates that a Primary CCPCH RSCP measurement shall be reported by the UE in PUSCH CAPACITY REQUEST message.

10.2.26 PUSCH CAPACITY REQUEST

NOTE: Only for TDD.

This message is used by the UE for request of PUSCH resources to the UTRAN.

RLC-SAP: TM

Logical channel: SHCCH

Direction: UE \rightarrow UTRAN

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Message Type	MP		Message Type	
<u>CDSCH</u> -RNTI	OP		CDSCH - RNTI 10.3.3.8a	
RRC transaction identifier	CV-ProtErr		RRC transaction identifier 10.3.3.36	
Traffic Volume	OP		Traffic Volume, measured results list 10.3.7.67	
Timeslot list	OP	1 to maxTS		
>Timeslot number	MP		Timeslot number 10.3.6.84	
>Timeslot ISCP	MP		Timeslot ISCP info 10.3.7.65	
Primary CCPCH RSCP	OP		Primary CCPCH RSCP info 10.3.7.54	
CHOICE Allocation confirmation	OP			
>PDSCH Confirmation			Integer(1hi	

Information Element/Group	Need	Multi	Type and	Semantics description
name			reference	
			PDSCHident	
			ities)	
>PUSCH Confirmation			Integer(1hi	
			PUSCHident	
			ities)	
Protocol error indicator	MD		Protocol	Default value is FALSE
			error	
			indicator	
			10.3.3.27	
Protocol error information	CV-ProtErr		Protocol	
			error	
			information	
			10.3.8.12	

Condition	Explanation
ProtErr	This IE is mandatory present if the IE "Protocol error indicator" has the value "TRUE". Otherwise it is not needed.

10.2.27 RADIO BEARER RECONFIGURATION

This message is sent from UTRAN to reconfigure parameters related to a change of QoS. This procedure can also change the multiplexing of MAC, reconfigure transport channels and physical channels.

RLC-SAP: AM or UM
Logical channel: DCCH

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Message Type	MP		Message	
HE L.C			Туре	
UE Information elements	<u> </u>			
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	
			10.3.3.19	
Ciphering mode info	OP		Ciphering	
			mode info	
			10.3.3.5	
Activation time	MD		Activation	Default value is "now"
			time 10.3.3.1	
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	
			10.3.3.8a	
RRC State Indicator	MP		RRC State	
			Indicator	
			10.3.3.10	
UTRAN DRX cycle length	OP		UTRAN DRX	
coefficient	_		cycle length	

Information Element/Group name	Need	Multi	Type and reference	Semantics description
			coefficient 10.3.3.49	
CN information elements			10.0.0.10	
CN Information info	OP		CN Information info 10.3.1.3	
UTRAN mobility information elements				
URA identity	OP		URA identity 10.3.2.6	
RB information elements				
RAB information to reconfigure list	OP	1 to < maxRABse tup >		
>RAB information to reconfigure	MP		RAB information to reconfigure 10.3.4.11	
RB information to reconfigure list	MP	1to <maxrb></maxrb>		Although this IE is not always required, need is MP to align with ASN.1
>RB information to reconfigure	MP		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	
TrCH Information Elements				
Uplink transport channels	0.5			
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 ></maxtrch 		
>Deleted UL TrCH information	MP		Deleted UL TrCH information 10.3.5.5	
Added or Reconfigured TrCH information list	OP	1 to <maxtrch ></maxtrch 		
>Added or Reconfigured UL TrCH information	MP		Added or Reconfigure d UL TrCH information 10.3.5.2	
CHOICE mode	OP			
>FDD >>CPCH set ID	OP		CPCH set ID 10.3.5.3	
>>Added or Reconfigured TrCH information for DRAC list	OP	1 to <maxtrch ></maxtrch 		

Information Element/Group name	Need	Multi	Type and reference	Semantics description
>>>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< 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 ></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	MD		Mandania	Defendancie de encieties
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			
CHOICE mode	MP			
>>FDD >>Downlink PDSCH information	OP		Downlink PDSCH information 10.3.6.30	
>TDD	<u> </u>		<u> </u>	(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	MP	1 to <maxrl></maxrl>		Although this IE is not always required, need is MP to align with ASN.1
>Downlink information for each radio link	MP		Downlink information for each radio link 10.3.6.27	

10.2.30 RADIO BEARER RELEASE

This message is used by UTRAN to release a radio bearer. It can also include modifications to the configurations of transport channels and/or physical channels. It can simultaneously indicate release of a signalling connection when UE is connected to more than one CN domain.

RLC-SAP: AM or UM Logical channel: DCCH Direction: UTRAN \rightarrow UE

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Message Type	MP		Message Type	
UE Information Elements			. 7	
RRC transaction identifier	MP		RRC transaction identifier 10.3.3.36	
Integrity check info	СН		Integrity check info 10.3.3.16	
Integrity protection mode info	OP		Integrity protection mode info 10.3.3.19	
Ciphering mode info	OP		Ciphering mode info 10.3.3.5	
Activation time	MD		Activation time 10.3.3.1	Default value is "now"
New U-RNTI	OP		U-RNTI 10.3.3.47	
New C-RNTI	OP		C-RNTI 10.3.3.8	
New DSCH-RNTI	<u>OP</u>		DSCH-RNTI 10.3.3.8a	
RRC State Indicator	MP		RRC State Indicator 10.3.3.10	
UTRAN DRX cycle length coefficient	OP		UTRAN DRX cycle length coefficient 10.3.3.49	
CN Information Elements				
CN Information info	OP		CN Information info 10.3.1.3	
Signalling Connection release indication	OP		CN domain identity 10.3.1.1	
UTRAN mobility information elements				
URA identity	OP		URA identity 10.3.2.6	
RB Information Elements				
RAB information to reconfigure list	OP	1 to < maxRABse tup >		
>RAB information to reconfigure	MP		RAB information to reconfigure 10.3.4.11	

Information Element/Group name	Need	Multi	Type and reference	Semantics description
RB information to release list	MP	1 to <maxrb></maxrb>		
>RB information to release	MP	NIII AND	RB information to release 10.3.4.19	
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></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 ></maxtrch 		
>Deleted UL TrCH information	MP		Deleted UL TrCH information 10.3.5.5	
Added or Reconfigured TrCH information list	OP	1 to <maxtrch ></maxtrch 		
>Added or Reconfigured UL TrCH information	MP		Added or Reconfigure d UL TrCH information 10.3.5.2	
CHOICE mode	OP			
>>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>10.0.0.0</td><td></td></maxtrch<>	10.0.0.0	
>>>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	

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Deleted TrCH information list	OP	1 to <maxtrch ></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			
>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	

10.2.33 RADIO BEARER SETUP

This message is sent by UTRAN to the UE to establish new radio bearer(s). It can also include modifications to the configurations of transport channels and/or physical channels.

RLC-SAP: AM or UM

Logical channel: DCCH

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Message Type	MP		Message Type	
UE Information Elements			1,700	
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 10.3.3.19	
Ciphering mode info	OP		Ciphering mode info 10.3.3.5	
Activation time	MD		Activation time 10.3.3.1	Default value is "now"
New U-RNTI	OP		U-RNTI 10.3.3.47	
New C-RNTI	OP		C-RNTI 10.3.3.8	
New DSCH-RNTI	<u>OP</u>		DSCH-RNTI 10.3.3.8a	
RRC State Indicator	MP		RRC State Indicator 10.3.3.10	
UTRAN DRX cycle length coefficient	OP		UTRAN DRX cycle length coefficient 10.3.3.49	
CN Information Elements				
CN Information info	OP		CN Information info 10.3.1.3	
UTRAN mobility information				
elements				
URA identity RB Information Elements	OP		URA identity 10.3.2.6	
	OP	1 to		For each signalling radio
Signalling RB information to setup list		<maxsrbs etup></maxsrbs 		For each signalling radio bearer established
>Signalling RB information to setup	MP		Signalling RB information to setup 10.3.4.24	
RAB information to setup list	OP	1 to <maxrabs etup></maxrabs 		For each RAB established
>RAB information for setup	MP		RAB information for setup 10.3.4.10	
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			

Information Element/Group name	Need	Multi	Type and reference	Semantics description
>RB with PDCP information list	OP	1 to <maxrball RABs></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	OP		III Tanananan	
UL Transport channel information common for all transport channels			UL Transport channel information common for all transport channels 10.3.5.24	
Deleted TrCH information list	OP	1 to <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 TrCH information	MP		Added or Reconfigure d UL TrCH information 10.3.5.2	
CHOICE mode	OP			
>FDD	0.0		ODOLL (ID	
>>CPCH set ID	OP		CPCH set ID 10.3.5.3	
>>Added or Reconfigured TrCH information for DRAC list	OP	1 to <maxtrch ></maxtrch 		
>>>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 channels10. 3.5.6	
Deleted TrCH information list	OP	1 to <maxtrch ></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	

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

10.2.50 TRANSPORT CHANNEL RECONFIGURATION

This message is used by UTRAN to configure the transport channel of a UE. This also includes a possible reconfiguration of physical channels. The message can also be used to assign a TFC subset and reconfigure physical channel.

RLC-SAP: AM or UM

Logical channel: DCCH

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Message Type	MP		Message Type	
UE Information Elements				
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	

Information Element/Group name	Need	Multi	Type and reference	Semantics description
			mode info 10.3.3.19	
Ciphering mode info	OP		Ciphering mode info 10.3.3.5	
Activation time	MD		Activation time 10.3.3.1	Default value is "now"
New U-RNTI	OP		U-RNTI 10.3.3.47	
New C-RNTI	OP		C-RNTI 10.3.3.8	
New DSCH-RNTI	<u>OP</u>		DSCH-RNTI 10.3.3.8a	
RRC State Indicator	MP		RRC State Indicator 10.3.3.10	
UTRAN DRX cycle length coefficient	OP		UTRAN DRX cycle length coefficient 10.3.3.49	
CN Information Elements				
CN Information info	OP		CN Information info 10.3.1.3	
UTRAN mobility information elements				
URA identity	OP		URA identity 10.3.2.6	
RB information elements				
Downlink counter synchronisation info	OP			
>RB with PDCP information list	OP	1 to <maxrball RABs></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	
Added or Reconfigured TrCH information list	OP	1 to <maxtrch ></maxtrch 		
>Added or Reconfigured UL TrCH information	MP		Added or Reconfigure d UL TrCH information 10.3.5.2	
CHOICE mode	OP			
>FDD			0.000	
>>CPCH set ID	OP		CPCH set ID 10.3.5.3	
>>Added or Reconfigured TrCH information for DRAC list	OP	1 to <maxtrch ></maxtrch 		
>>>DRAC static information	MP		DRAC static information 10.3.5.7	

Information Element/Group name	Need	Multi	Type and reference	Semantics description
>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	
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			
>Uplink DPCH info >CPCH SET Info			Uplink DPCH info 10.3.6.88 CPCH SET Info	
			10.3.6.13	
Downlink radio resources			10.0.0.10	
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
>Downlink information for each radio link	MP		Downlink information for each radio link 10.3.6.27	

10.3.3.8a DSCH-RNTI

<u>In FDD</u>, the DSCH-RNTI identifies an UE in CELL_DCH using a DSCH within a cell. In TDD, the DSCH-RNTI identifies a UE in CELL_DCH or CELL_FACH using a DSCH or USCH within the cell.

Information Element/Group	Need	<u>Multi</u>	Type and	Semantics description
<u>name</u>			<u>reference</u>	
DSCH-RNTI	MP		bit string(16)	

11.2 PDU definitions

```
-- TABULAR: The message type and integrity check info are not
\mbox{--}\mbox{ visible} in this module as they are defined in the class module.
-- Also, all FDD/TDD specific choices have the FDD option first
-- and TDD second, just for consistency.
PDU-definitions DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
-- IE parameter types from other modules
IMPORTS
-- Core Network IEs :
   CN-DomainIdentity,
   CN-InformationInfo,
   CN-InformationInfoFull,
   NAS-Message,
   PagingRecordTypeID,
-- UTRAN Mobility IEs :
   URA-Identity,
-- User Equipment IEs :
   ActivationTime,
   C-RNTI,
   CapabilityUpdateRequirement,
   CapabilityUpdateRequirement-r4,
   CapabilityUpdateRequirement-r4-ext,
   CellUpdateCause,
   CipheringAlgorithm,
   CipheringModeInfo,
   DSCH-RNTI,
   EstablishmentCause,
__ *******************************
-- CELL UPDATE CONFIRM
CellUpdateConfirm ::= CHOICE {
                                  SEQUENCE {
   r3
                                  CellUpdateConfirm-r3-IEs,
       cellUpdateConfirm-r3
       v3a0NnonCriticalExtensions
                                         SEQUENCE {
           cellUpdateConfirm-v3a0ext
                                      CellUpdateConfirm-v3a0ext,
           v4NonCriticalExtensions
                                         SEQUENCE {
               cellUpdateConfirm-r3-r4-ext
                                              CellUpdateConfirm-r3-r4-ext-IEs,
               nonCriticalExtensions
                                             SEQUENCE {} OPTIONAL
           OPTIONAL
               OPTIONAL
   later-than-r3
                                  SEQUENCE {
                                  RRC-TransactionIdentifier,
       rrc-TransactionIdentifier
       criticalExtensions
                                      CHOICE {
                                         SEQUENCE {
               cellUpdateConfirm-r4
                                             CellUpdateConfirm-r4-IEs,
               nonCriticalExtensions
                                             SEQUENCE {}
                                                            OPTIONAL
           },
```

```
criticalExtensions
                                            SEQUENCE {}
CellUpdateConfirm-r3-IEs ::= SEQUENCE {
     - User equipment IEs
        rrc-TransactionIdentifier
                                        RRC-TransactionIdentifier.
        integrityProtectionModeInfo
                                                                             OPTIONAL.
                                        IntegrityProtectionModeInfo
        {\tt cipheringModeInfo}
                                        CipheringModeInfo
                                                                             OPTIONAL,
        activationTime
                                        ActivationTime
                                                                             OPTIONAL,
       new-U-RNTI
                                        U-RNTI
                                                                             OPTIONAL,
        new-C-RNTI
                                        C-RNTI
                                                                             OPTIONAL.
        rrc-StateIndicator
                                        RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff
                                       UTRAN-DRX-CycleLengthCoefficient
                                                                             OPTIONAL,
       rlc-Re-establishIndicatorRb2-3or4
                                                BOOLEAN,
       rlc-Re-establishIndicatorRb5orAbove
                                                BOOLEAN,
 -- CN information elements
        cn-InformationInfo
                                        CN-InformationInfo
                                                                             OPTIONAL,
    -- UTRAN mobility IEs
       ura-Identity
                                        URA-Identity
                                                                             OPTIONAL,
    -- Radio bearer IEs
        rb-InformationReleaseList
                                       RB-InformationReleaseList
                                                                             OPTIONAL,
        rb-InformationReconfigList
                                        RB-InformationReconfigList
                                                                             OPTIONAL,
       rb-InformationAffectedList
                                        RB-InformationAffectedList
                                                                             OPTIONAL.
       dl-CounterSynchronisationInfo
                                       DL-CounterSynchronisationInfo
                                                                             OPTIONAL.
    -- Transport channel IEs
        ul-CommonTransChInfo
                                        UL-CommonTransChInfo
                                                                             OPTIONAL,
        ul-deletedTransChInfoList
                                        UL-DeletedTransChInfoList
                                                                             OPTIONAL,
       ul-AddReconfTransChInfoList
                                        UL-AddReconfTransChInfoList
                                                                             OPTIONAL,
                                        CHOICE {
        modeSpecificTransChInfo
            fdd
                                            SEQUENCE {
                cpch-SetID
                                                CPCH-SetID
                addReconfTransChDRAC-Info
                                                DRAC-StaticInformationList OPTIONAL
            },
            tdd
                                            NULL
        dl-CommonTransChInfo
                                        DL-CommonTransChInfo
                                                                             OPTIONAL,
        dl-DeletedTransChInfoList
                                        DL-DeletedTransChInfoList
                                                                             OPTIONAL,
        dl-AddReconfTransChInfoList
                                        DL-AddReconfTransChInfoList
                                                                             OPTIONAL,
    -- Physical channel IEs
        frequencyInfo
                                        FrequencyInfo
                                                                             OPTIONAL,
                                        MaxAllowedUL-TX-Power
        maxAllowedUL-TX-Power
                                                                             OPTIONAL.
                                        UL-ChannelRequirement
        ul-ChannelRequirement
                                                                             OPTIONAL,
        modeSpecificPhysChInfo
                                        CHOICE {
                                            SEQUENCE {
                dl-PDSCH-Information
                                                DL-PDSCH-Information
                                                                             OPTIONAL
            },
            tdd
                                            NULL
        dl-CommonInformation
                                        DL-CommonInformation
                                                                             OPTIONAL,
        dl-InformationPerRL-List
                                        DL-InformationPerRL-List
                                                                             OPTIONAL
}
CellUpdateConfirm-v3a0ext ::= SEQUENCE
   new-DSCH-RNTI
                                        DSCH-RNTI
                                                                             OPTIONAL
CellUpdateConfirm-r3-r4-ext-IEs ::= SEQUENCE {
   -- Physical channel IEs
   -- The following IE extends SSDT-Information, which is included in
    -- DL-CommonInformation. FDD only.
                                        SSDT-UL-r4
                                                                             OPTIONAL
}
CellUpdateConfirm-r4-IEs ::= SEQUENCE {
    -- User equipment IEs
       integrityProtectionModeInfo
                                        IntegrityProtectionModeInfo
                                                                             OPTIONAL,
        cipheringModeInfo
                                        CipheringModeInfo
                                                                             OPTIONAL,
        activationTime
                                        ActivationTime
                                                                             OPTIONAL,
       new-U-RNTI
                                        U-RNTI
                                                                             OPTIONAL,
       new-C-RNTI
                                        C-RNTI
                                                                             OPTIONAL,
                                        DSCH-RNTI
       new-DSCH-RNTI
                                                                             OPTIONAL,
        rrc-StateIndicator
                                        RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff
                                        UTRAN-DRX-CycleLengthCoefficient
                                                                             OPTIONAL,
       rlc-ResetIndicatorC-Plane
                                        BOOLEAN,
        rlc-ResetIndicatorU-Plane
                                        BOOLEAN.
 -- CN information elements
```

```
cn-InformationInfo
                                      CN-InformationInfo
                                                                         OPTIONAL,
    -- UTRAN mobility IEs
       ura-Identity
                                      URA-Identity
                                                                         OPTIONAL,
    -- Radio bearer IEs
       rb-InformationReleaseList
                                      RB-InformationReleaseList
                                                                          OPTIONAL,
       rb-InformationReconfigList
                                      RB-InformationReconfigList-r4
                                                                              OPTIONAL,
       rb-InformationAffectedList
                                      RB-InformationAffectedList
                                                                          OPTIONAL,
       rb-WithPDCP-InfoList
                                      RB-WithPDCP-InfoList
                                                                         OPTIONAL,
    -- Transport channel IEs
       ul-CommonTransChInfo
                                      UL-CommonTransChInfo
                                                                          OPTIONAL,
       ul-deletedTransChInfoList
                                      UL-DeletedTransChInfoList
                                                                         OPTIONAL,
       ul-AddReconfTransChInfoList
                                      UL-AddReconfTransChInfoList
                                                                         OPTIONAL.
       modeSpecificTransChInfo
                                      CHOICE {
           fdd
                                          SEQUENCE {
               cpch-SetID
                                              CPCH-SetID
                                                                          OPTIONAL,
               addReconfTransChDRAC-Info
                                              DRAC-StaticInformationList OPTIONAL
           },
           tdd
                                          NULL
       dl-CommonTransChInfo
                                      DL-CommonTransChInfo-r4
                                                                         OPTIONAL,
       dl-DeletedTransChInfoList
                                      DL-DeletedTransChInfoList
                                                                          OPTIONAL,
       dl-AddReconfTransChInfoList
                                      DL-AddReconfTransChInfoList
                                                                         OPTIONAL,
    -- Physical channel IEs
       frequencyInfo
                                      FrequencyInfo
                                                                         OPTIONAL,
       maxAllowedUL-TX-Power
                                      MaxAllowedUL-TX-Power
                                                                         OPTIONAL,
       ul-ChannelRequirement
                                      UL-ChannelRequirement-r4
                                                                         OPTIONAL,
       modeSpecificPhysChInfo
                                      CHOICE {
           fdd
                                          SEOUENCE {
               dl-PDSCH-Information
                                              DL-PDSCH-Information
                                                                         OPTIONAL
           },
           tdd
                                          NULL
       dl-CommonInformation
                                      DL-CommonInformation-r4
                                                                         OPTIONAL,
       dl-InformationPerRL-List
                                      DL-InformationPerRL-List-r4
                                                                         OPTIONAL
}
   -- PHYSICAL CHANNEL RECONFIGURATION
__ ***************
PhysicalChannelReconfiguration ::= CHOICE {
                                   SEQUENCE {
       physicalChannelReconfiguration-r3
                                      PhysicalChannelReconfiguration-r3-IEs,
       v3a0NonCriticalExtensions
                                         SEQUENCE {
           physicalChannelReconfiguration-v3a0ext
                                      PhysicalChannelReconfiguration-v3a0ext,
                                          SEQUENCE {
           v4NnonCriticalExtensions
               physicalChannelReconfiguration-r3-r4-ext
                                      PhysicalChannelReconfiguration-r3-r4-ext-IEs,
                                                      SEQUENCE {} OPTIONAL
               nonCriticalExtensions
               OPTIONAL
           OPTIONAL
                                   SEQUENCE {
   later-than-r3
       rrc-TransactionIdentifier
                                      RRC-TransactionIdentifier,
           criticalExtensions
                                          CHOICE {
                                          SEQUENCE {
               physicalChannelReconfiguration-r4
                                              PhysicalChannelReconfiguration-r4-IEs,
               nonCriticalExtensions
                                              SEQUENCE {}
                                                              OPTIONAL
           criticalExtensions
                                          SEQUENCE {}
       }
   }
}
PhysicalChannelReconfiguration-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
       rrc-TransactionIdentifier
                                      RRC-TransactionIdentifier,
        integrityProtectionModeInfo
                                      IntegrityProtectionModeInfo
                                                                         OPTIONAL,
```

```
cipheringModeInfo
                                      CipheringModeInfo
                                                                         OPTIONAL,
                                      ActivationTime
       activationTime
                                                                         OPTIONAL,
       new-U-RNTI
                                      U-RNTI
                                                                         OPTIONAL,
       new-C-RNTI
                                      C-RNTI
                                                                         OPTIONAL,
       rrc-StateIndicator
                                      RRC-StateIndicator,
       utran-DRX-CycleLengthCoeff UTRAN-DRX-CycleLengthCoefficient
    -- Core network IEs
                                      CN-InformationInfo
       cn-InformationInfo
                                                                         OPTIONAL,
   -- UTRAN mobility IEs
       ura-Identity
                                      URA-Identity
                                                                          OPTIONAL,
     - Radio bearer IEs
       dl-CounterSynchronisationInfo DL-CounterSynchronisationInfo
                                                                         OPTIONAL.
    -- Physical channel IEs
       frequencyInfo
                                     FrequencyInfo
                                                                         OPTIONAL,
       maxAllowedUL-TX-Power ul-ChannelRequirement
                                      MaxAllowedUL-TX-Power
                                                                         OPTIONAL,
                                     UL-ChannelRequirementWithCPCH-SetID
                                                                           OPTIONAL,
        -- TABULAR: UL-ChannelRequirementWithCPCH-SetID contains the choice
       -- between UL DPCH info, CPCH SET info and CPCH set ID.
                                    CHOICE {
       modeSpecificInfo
           fdd
                                          SEQUENCE {
               dl-PDSCH-Information
                                              DL-PDSCH-Information
                                                                        OPTIONAL
           },
           tdd
                                          NULL
       dl-CommonInformation
                                      DL-CommonInformation
                                                                         OPTIONAL.
       dl-InformationPerRL-List
                                      DL-InformationPerRL-List
                                                                         OPTIONAL
}
PhysicalChannelReconfiguration-v3a0ext ::= SEQUENCE {
                                                                         OPTIONAL
   new-DSCH-RNTI
                                      DSCH-RNTI
PhysicalChannelReconfiguration-r3-r4-ext-IEs ::= SEQUENCE {
    -- Physical channel IEs
    -- The following IE extends SSDT-Information, which is included in
   -- DL-CommonInformation. FDD only.
                                       SSDT-UL-r4
                                                                          OPTIONAL
}
PhysicalChannelReconfiguration-r4-IEs ::= SEQUENCE {
    -- User equipment IEs
       integrityProtectionModeInfo
                                     IntegrityProtectionModeInfo
                                                                         OPTIONAL,
       {\tt cipheringModeInfo}
                                      CipheringModeInfo
                                                                         OPTIONAL,
       activationTime
                                      ActivationTime
                                                                         OPTIONAL,
       new-U-RNTI
                                      U-RNTI
       new-C-RNTI
                                      C-RNTI
                                                                         OPTIONAL,
       new-DSCH-RNTI
                                      DSCH-RNTI
       utran-DRX-CycleLengthCoeff UTRAN-DRX-CycleTone
Core network TF0
                                                                         OPTIONAL,
                                      UTRAN-DRX-CycleLengthCoefficient
                                                                         OPTIONAL,
    -- Core network IEs
       cn-InformationInfo
                                      CN-InformationInfo
                                                                         OPTIONAL,
    -- UTRAN mobility IEs
       ura-Identity
                                     URA-Identity
                                                                         OPTIONAL,
    -- Radio bearer IEs
       rb-WithPDCP-InfoList
                                    RB-WithPDCP-InfoList
                                                                         OPTIONAL,
    -- Physical channel IEs
       frequencyInfo
                                      FrequencyInfo
                                                                         OPTIONAL,
       maxAllowedUL-TX-Power
                                     MaxAllowedUL-TX-Power
       ul-ChannelRequirement
                                      UL-ChannelRequirementWithCPCH-SetID-r4 OPTIONAL,
       -- TABULAR: UL-ChannelRequirementWithCPCH-SetID-r4 contains the choice
        -- between UL DPCH info, CPCH SET info and CPCH set ID.
       modeSpecificInfo
                              CHOICE {
           fdd
                                          SEQUENCE {
               dl-PDSCH-Information
                                              DL-PDSCH-Information
                                                                        OPTIONAL
           },
           tdd
                                          NULL
       dl-CommonInformation
                                                                         OPTIONAL,
                                     DL-CommonInformation-r4
       dl-InformationPerRL-List
                                     DL-InformationPerRL-List-r4
                                                                         OPTIONAL
}
```

-- PHYSICAL SHARED CHANNEL ALLOCATION (TDD only)

```
__ *******************
PhysicalSharedChannelAllocation ::= CHOICE {
                                  SEQUENCE {
       physicalSharedChannelAllocation-r3
                                      PhysicalSharedChannelAllocation-r3-IEs,
       nonCriticalExtensions
                                      SEQUENCE {} OPTIONAL
   later-than-r3
                                 SEQUENCE {
                                  DSCHC-RNTI
       dsche-RNTI
                                                                                 OPTIONAL.
       rrc-TransactionIdentifier
                                      RRC-TransactionIdentifier,
       criticalExtensions
                                      CHOICE {
                                       SEQUENCE {
               physicalSharedChannelAllocation-r4
                                              PhysicalSharedChannelAllocation-r4-IEs,
               nonCriticalExtensions
                                              SEQUENCE {}
                                                           OPTIONAL
           criticalExtensions
                                          SEQUENCE {}
       }
   }
}
PhysicalSharedChannelAllocation-r3-IEs ::= SEQUENCE {
    -- TABULAR: Integrity protection shall not be performed on this message.
    -- User equipment IEs
                                          dsch€-RNTI
       dsche-RNTI
                                                                                 OPTIONAL,
       rrc-TransactionIdentifier RRC-TransactionIdentifier,
    -- Physical channel IEs
                                     UL-TimingAdvanceControl
       ul-TimingAdvance
       pusch-CapacityAllocationInfo pdsch-CapacityAllocationInfo pdsch-CapacityAllocationInfo PDSCH-CapacityAllocationInfo
                                                                         OPTIONAL,
                                                                         OPTIONAL,
       confirmRequest
                                    ENUMERATED {
                                          confirmPDSCH, confirmPUSCH } OPTIONAL,
       -- TABULAR: If the above value is not present, the default value "No Confirm"
        -- shall be used as specified in 10.2.25.
       trafficVolumeReportRequest INTEGER (0..255)
                                                                         OPTIONAL.
       iscpTimeslotList
                                          TimeslotList
                                                                             OPTIONAL,
       requestPCCPCHRSCP
                                          BOOLEAN
}
PhysicalSharedChannelAllocation-r4-IEs ::= SEQUENCE {
    -- TABULAR: Integrity protection shall not be performed on this message.
    -- Physical channel IEs
       ul-TimingAdvance
                                      UL-TimingAdvanceControl-r4
                                                                         OPTIONAL,
       pusch-CapacityAllocationInfo PDSCH-Capacity ENUMERATED {
       pusch-CapacityAllocationInfo PUSCH-CapacityAllocationInfo-r4
                                                                         OPTIONAL,
                                      PDSCH-CapacityAllocationInfo-r4
                                                                         OPTIONAL,
                                          confirmPDSCH, confirmPUSCH }
                                                                       OPTIONAL,
       -- TABULAR: If the above value is not present, the default value "No Confirm"
        -- shall be used as specified in 10.2.25.
       iscpTimeslotList
                                     TimeslotList-r4
                                                                         OPTIONAL,
       requestPCCPCHRSCP
                                      BOOLEAN
}
__ ****************
-- PUSCH CAPACITY REQUEST (TDD only)
__ ***************
PUSCHCapacityRequest ::= SEQUENCE {
   -- User equipment IEs
       <u>dsch</u>e-RNTI
                                        ——<u>DSCH</u>€-RNTI
                                                                                 OPTIONAL,
    -- Measurement IEs
       trafficVolume
                                      TrafficVolumeMeasuredResultsList,
                                    TimeslotListWithISCP
       timeslotListWithISCP
                                                                         OPTIONAL.
       primaryCCPCH-RSCP
                                      PrimaryCCPCH-RSCP
                                                                         OPTIONAL,
       allocationConfirmation
                                      CHOICE {
                                      PDSCH-Identity,
          pdschConfirmation
                                         PUSCH-Identity
           puschConfirmation
                                                                         OPTIONAL,
       protocolErrorIndicator
                                     ProtocolErrorIndicatorWithMoreInfo,
    -- Extension mechanism for non- release99 information
```

```
nonCriticalExtensions
                                      SEQUENCE {} OPTIONAL
}
  ************
-- RADIO BEARER RECONFIGURATION
   ************
RadioBearerReconfiguration ::= CHOICE {
                                  SEQUENCE {
       {\tt radioBearerReconfiguration-r3-IEs}\,,
       v3a0nonCriticalExtensions
                                          SEQUENCE {
           {\tt radioBearerReconfiguration-v3a0ext}
                                                  RadioBearerReconfiguration-v3a0ext,
                                       SEQUENCE {
           v4N<del>n</del>onCriticalExtensions
               radioBearerReconfiguration-r3-r4-ext
                                              RadioBearerReconfiguration-r3-r4-ext-IEs,
               {\tt nonCriticalExtensions}
                                                  SEQUENCE {} OPTIONAL
               OPTIONAL
           OPTIONAL
    later-than-r3
                                  SEQUENCE {
                                   RRC-TransactionIdentifier,
       rrc-TransactionIdentifier
       criticalExtensions
                                      CHOICE {
           r4
                                          SEQUENCE {
               radioBearerReconfiguration-r4 RadioBearerReconfiguration-r4-IEs,
               nonCriticalExtensions
                                              SEQUENCE {}
                                                             OPTIONAL
           },
           criticalExtensions
                                          SEQUENCE {}
       }
   }
}
RadioBearerReconfiguration-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
       rrc-TransactionIdentifier
                                      RRC-TransactionIdentifier,
       integrityProtectionModeInfo
                                      IntegrityProtectionModeInfo
                                                                         OPTIONAL,
       cipheringModeInfo
                                      CipheringModeInfo
                                                                         OPTIONAL,
       activationTime
                                      ActivationTime
                                                                         OPTIONAL,
       new-U-RNTI
                                      U-RNTI
                                                                         OPTIONAL.
       new-C-RNTI
                                      C-RNTI
                                                                         OPTIONAL,
       rrc-StateIndicator
                                      RRC-StateIndicator,
       utran-DRX-CycleLengthCoeff
                                      UTRAN-DRX-CycleLengthCoefficient
                                                                         OPTIONAL,
    -- Core network IEs
       cn-InformationInfo
                                      CN-InformationInfo
                                                                         OPTIONAL.
    -- UTRAN mobility IEs
       ura-Identity
                                      URA-Identity
                                                                         OPTIONAL,
    -- Radio bearer IEs
       rab-InformationReconfigList
                                      RAB-InformationReconfigList
                                                                         OPTIONAL,
       rb-InformationReconfigList
                                      RB-InformationReconfigList,
    -- NOTE: IE rb-InformationReconfigList should be optional in later versions of this message
                                    RB-InformationAffectedList
       rb-InformationAffectedList
                                                                         OPTIONAL,
    -- Transport channel IEs
       ul-CommonTransChInfo
                                      UL-CommonTransChInfo
                                                                         OPTIONAL,
       ul-deletedTransChInfoList
                                    UL-DeletedTransChInfoList
       ul-AddReconfTransChInfoList
                                      UL-AddReconfTransChInfoList
                                                                         OPTIONAL,
       modeSpecificTransChInfo
                                      CHOICE {
           fdd
                                          SEQUENCE {
               cpch-SetID
                                              CPCH-SetID
                                                                         OPTIONAL,
               {\tt addReconfTransChDRAC-Info}
                                              DRAC-StaticInformationList OPTIONAL
           },
           tdd
                                          NULL
                                                                         OPTIONAL.
                                      DL-CommonTransChInfo
       dl-CommonTransChInfo
                                                                         OPTIONAL,
       dl-DeletedTransChInfoList
                                      DL-DeletedTransChInfoList
                                                                         OPTIONAL,
       dl-AddReconfTransChInfoList
                                      DL-AddReconfTransChInfo2List
                                                                         OPTIONAL,
    -- Physical channel IEs
       frequencyInfo
                                      FrequencyInfo
                                                                         OPTIONAL,
       maxAllowedUL-TX-Power
                                      MaxAllowedUL-TX-Power
                                                                         OPTIONAL,
       ul-ChannelRequirement
                                      UL-ChannelRequirement
                                                                         OPTIONAL,
       {\tt modeSpecificPhysChInfo}
                                      CHOICE {
           fdd
                                          SEQUENCE {
               dl-PDSCH-Information
                                              DL-PDSCH-Information
                                                                        OPTIONAL
           },
```

```
tdd
                                            NULL
       dl-Information DL-CommonInformation

DL-Tnformation

DL-Tnformation
                                                                            OPTIONAL,
                                       DL-InformationPerRL-List
    -- NOTE: IE dl-InformationPerRL-List should be optional in later versions of this message
}
RadioBearerReconfiguration-v3a0ext ::= SEQUENCE {
    new-DSCH-RNTI
                                                                            OPTIONAL
}
{\tt RadioBearerReconfiguration-r3-r4-ext-IEs} \ ::= \ {\tt SEQUENCE} \ \big\{
    -- Physical channel IEs
    -- The following IE extends SSDT-Information, which is included in
    -- DL-CommonInformation. FDD only.
                                        SSDT-III-r4
                                                                            OPTIONAL
}
RadioBearerReconfiguration-r4-IEs ::= SEQUENCE {
    -- User equipment IEs
        integrityProtectionModeInfo
                                        IntegrityProtectionModeInfo
                                                                            OPTIONAL,
        cipheringModeInfo
                                        CipheringModeInfo
                                                                            OPTIONAL,
        activationTime
                                        ActivationTime
                                                                            OPTIONAL,
       new-U-RNTI
                                        U-RNTI
                                                                            OPTIONAL.
                                        C-RNTI
       new-C-RNTI
                                                                            OPTIONAL,
      new-DSCH-RNTI
                                        DSCH-RNTI
                                                                            OPTIONAL,
                                        RRC-StateIndicator,
        rrc-StateIndicator
       utran-DRX-CycleLengthCoeff
                                       UTRAN-DRX-CycleLengthCoefficient
                                                                            OPTIONAL,
    -- Core network IEs
        cn-InformationInfo
                                        CN-InformationInfo
                                                                            OPTIONAL,
    -- UTRAN mobility IEs
       ura-Identity
                                       URA-Identity
                                                                            OPTIONAL,
    -- Radio bearer IEs
        rab-InformationReconfigList
                                                                            OPTIONAL,
                                       RAB-InformationReconfigList
       rb-InformationReconfigList RB-InformationReconfigList-rb-InformationAffectedList RB-InformationAffectedList
                                        RB-InformationReconfigList-r4
                                                                            OPTIONAL,
                                                                            OPTIONAL,
    -- Transport channel IEs
                                       UL-CommonTransChInfo
        ul-CommonTransChInfo
                                                                            OPTIONAL,
        ul-deletedTransChInfoList
                                       UL-DeletedTransChInfoList
                                                                            OPTIONAL,
        ul-AddReconfTransChInfoList
                                        UL-AddReconfTransChInfoList
                                                                            OPTIONAL,
        modeSpecificTransChInfo
                                       CHOICE {
            fdd
                                            SEQUENCE {
                cpch-SetID
                                                CPCH-SetID
                                                                            OPTIONAL,
                {\tt addReconfTransChDRAC-Info}
                                                DRAC-StaticInformationList OPTIONAL
            },
            tdd
                                            NULL
                                                                            OPTIONAL,
        dl-CommonTransChInfo
                                       DL-CommonTransChInfo-r4
                                                                            OPTIONAL,
                                     DL-DeletedTransChInfoList
        dl-DeletedTransChInfoList
                                                                            OPTIONAL,
        dl-AddReconfTransChInfoList
                                       DL-AddReconfTransChInfo2List
                                                                            OPTIONAL,
    -- Physical channel IEs
        frequencyInfo
                                       FrequencyInfo
                                                                            OPTIONAL,
        maxAllowedUL-TX-Power
                                        MaxAllowedUL-TX-Power
                                                                            OPTIONAL,
        ul-ChannelRequirement
                                       UL-ChannelRequirement-r4
                                                                            OPTIONAL,
        modeSpecificPhysChInfo
                                       CHOICE {
            fdd
                                            SEQUENCE {
                dl-PDSCH-Information
                                                DL-PDSCH-Information
                                                                            OPTIONAL
            },
            tdd
                                            NULL
        dl-CommonInformation
                                       DL-CommonInformation-r4
                                                                            OPTIONAL,
        dl-InformationPerRL-List
                                        DL-InformationPerRL-List-r4
                                                                            OPTIONAL
}
  *************
-- RADIO BEARER RELEASE
__ ****************
RadioBearerRelease ::= CHOICE {
                                    SEQUENCE {
   r3
        radioBearerRelease-r3
                                        RadioBearerRelease-r3-IEs,
        v3a0nonCriticalExtensions
                                            SEQUENCE {
            radioBearerRelease-v3a0ext
                                            RadioBearerRelease-v3a0ext,
```

```
SEQUENCE {
            v4N<del>n</del>onCriticalExtensions
                radioBearerRelease-r3-r4-ext
                                                 RadioBearerRelease-r3-r4-ext-TEs.
                nonCriticalExtensions
                                                 SEQUENCE {} OPTIONAL
                OPTIONAL
            OPTIONAL
    later-than-r3
                                     SEQUENCE {
                                         RRC-TransactionIdentifier,
        rrc-TransactionIdentifier
        criticalExtensions
                                         CHOICE {
                                             SEQUENCE {
            r4
                radioBearerRelease-r4
                                                 RadioBearerRelease-r4-IEs,
                nonCriticalExtensions
                                                  SEQUENCE { }
                                                                 OPTIONAL
            },
                                             SEQUENCE {}
            criticalExtensions
        }
    }
}
RadioBearerRelease-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier
                                         RRC-TransactionIdentifier,
        \verb|integrity| Protection ModeInfo|\\
                                         {\tt IntegrityProtectionModeInfo}
                                                                               OPTIONAL,
        \verb|ciphering| ModeInfo|
                                         {\tt Ciphering ModeInfo}
                                                                               OPTIONAL,
        activationTime
                                         ActivationTime
                                                                               OPTIONAL,
        new-U-RNTI
                                         U-RNTI
                                                                               OPTIONAL.
        new-C-RNTI
                                         C-RNTI
                                                                               OPTIONAL,
        rrc-StateIndicator
                                         RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff
                                         UTRAN-DRX-CycleLengthCoefficient
                                                                               OPTIONAL,
    -- Core network IEs
        cn-InformationInfo
                                         CN-InformationInfo
                                                                               OPTIONAL.
        signallingConnectionRelIndication CN-DomainIdentity
                                                                               OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity
                                         URA-Identity
                                                                               OPTIONAL,
    -- Radio bearer IEs
        rab-InformationReconfigList
                                         RAB-InformationReconfigList
                                                                               OPTIONAL,
        rb-InformationReleaseList
                                         RB-InformationReleaseList,
        rb-InformationAffectedList
                                         RB-InformationAffectedList
                                                                               OPTIONAL,
        dl-CounterSynchronisationInfo DL-CounterSynchronisationInfo
                                                                               OPTIONAL.
    -- Transport channel IEs
        ul-CommonTransChInfo
                                         UL-CommonTransChInfo
                                                                               OPTIONAL,
        ul-deletedTransChInfoList
                                         UL-DeletedTransChInfoList
                                                                               OPTIONAL,
        ul-AddReconfTransChInfoList
                                         UL-AddReconfTransChInfoList
                                                                               OPTIONAL,
        modeSpecificTransChInfo
                                         CHOICE {
            fdd
                                             SEQUENCE {
                cpch-SetID
                                                  CPCH-SetID
                addReconfTransChDRAC-Info
                                                 DRAC-StaticInformationList OPTIONAL
            },
            tdd
                                             NULL
                                                                               OPTIONAL,
        dl-CommonTransChInfo
                                         DL-CommonTransChInfo
                                                                               OPTIONAL,
        dl-DeletedTransChInfoList
                                         DL-DeletedTransChInfoList
                                                                               OPTIONAL,
        dl-AddReconfTransChInfoList
                                         DL-AddReconfTransChInfo2List
                                                                               OPTIONAL,
    -- Physical channel IEs
        frequencyInfo
                                         FrequencyInfo
                                                                               OPTIONAL,
        maxAllowedUL-TX-Power
                                         MaxAllowedUL-TX-Power
                                                                               OPTIONAL,
                                         {\tt UL-ChannelRequirement}
        ul-ChannelRequirement
                                                                               OPTIONAL.
                                         CHOICE {
        modeSpecificPhysChInfo
                                             SEQUENCE {
            fdd
                dl-PDSCH-Information
                                                 DL-PDSCH-Information
                                                                               OPTIONAL
            },
                                         MIII.I.
            tdd
        dl-CommonInformation
                                         DL-CommonInformation
                                                                               OPTIONAL,
        dl-InformationPerRL-List
                                         DL-InformationPerRL-List
                                                                               OPTIONAL
}
RadioBearerRelease-v3a0ext ::= SEQUENCE
    new-DSCH-RNTI
                                         DSCH-RNTI
                                                                               OPTIONAL
RadioBearerRelease-r3-r4-ext-IEs ::= SEQUENCE {
    -- Physical channel IEs
    -- The following IE extends SSDT-Information, which is included in
    -- DL-CommonInformation. FDD only.
                                         SSDT-UL-r4
                                                                               OPTIONAL
RadioBearerRelease-r4-IEs ::= SEOUENCE {
```

```
-- User equipment IEs
        integrityProtectionModeInfo
                                       IntegrityProtectionModeInfo
                                                                           OPTIONAL,
        cipheringModeInfo
                                       CipheringModeInfo
                                                                           OPTIONAL,
                                       ActivationTime
                                                                           OPTIONAL,
        activationTime
       new-U-RNTI
                                       U-RNTI
                                                                           OPTIONAL,
       new-C-RNTI
                                       C-RNTI
                                                                           OPTIONAL,
       new-DSCH-RNTI
                                       DSCH-RNTI
                                                                           OPTIONAL,
       rrc-StateIndicator
                                       RRC-StateIndicator,
       \verb"utran-DRX-CycleLengthCoeff"
                                       UTRAN-DRX-CycleLengthCoefficient
                                                                           OPTIONAL,
    -- Core network IEs
       cn-InformationInfo
                                       CN-InformationInfo
                                                                           OPTIONAL,
        signallingConnectionRelIndication CN-DomainIdentity
                                                                           OPTIONAL.
    -- UTRAN mobility IEs
       ura-Identity
                                       URA-Identity
                                                                           OPTIONAL,
    -- Radio bearer IEs
       rab-InformationReconfigList
                                       RAB-InformationReconfigList
                                                                           OPTIONAL,
        rb-InformationReleaseList
                                       RB-InformationReleaseList,
       rb-InformationAffectedList
                                       RB-InformationAffectedList
                                                                           OPTIONAL,
        rb-WithPDCP-InfoList
                                       RB-WithPDCP-InfoList
                                                                           OPTIONAL,
    -- Transport channel IEs
       ul-CommonTransChInfo
                                       UL-CommonTransChInfo
                                                                           OPTIONAL,
        ul-deletedTransChInfoList
                                       UL-DeletedTransChInfoList
                                                                           OPTIONAL,
        ul-AddReconfTransChInfoList
                                       UL-AddReconfTransChInfoList
                                                                           OPTIONAL,
        modeSpecificTransChInfo
                                       CHOICE {
           fdd
                                           SEQUENCE {
               cpch-SetID
                                               CPCH-Set.ID
                                                                           OPTIONAL.
                addReconfTransChDRAC-Info
                                               DRAC-StaticInformationList OPTIONAL
            },
           tdd
                                           NULL
                                                                           OPTIONAL,
        dl-CommonTransChInfo
                                       DL-CommonTransChInfo-r4
                                                                           OPTIONAL,
        dl-DeletedTransChInfoList
                                       DL-DeletedTransChInfoList
                                                                           OPTIONAL,
        dl-AddReconfTransChInfoList
                                       DL-AddReconfTransChInfo2List
                                                                           OPTIONAL,
    -- Physical channel IEs
        frequencyInfo
                                       FrequencyInfo
                                                                           OPTIONAL,
        maxAllowedUL-TX-Power
                                       MaxAllowedUL-TX-Power
                                                                           OPTIONAL,
                                       UL-ChannelRequirement-r4
        ul-ChannelRequirement
                                                                           OPTIONAL.
        modeSpecificPhysChInfo
                                       CHOICE {
           fdd
                                           SEQUENCE {
                                               DL-PDSCH-Information
                dl-PDSCH-Information
           },
            tdd
                                       NULL
        dl-CommonInformation
                                       DL-CommonInformation-r4
                                                                           OPTIONAL.
       dl-InformationPerRL-List
                                       DL-InformationPerRL-List-r4
                                                                           OPTIONAL
}
   ************
-- RADIO BEARER SETUP
__ ****************
RadioBearerSetup ::= CHOICE {
    r3
                                   SEQUENCE {
        radioBearerSetup-r3
                                       RadioBearerSetup-r3-IEs,
        v3a0nonCriticalExtensions
                                           SEQUENCE {
                                           RadioBearerSetup-v3a0ext,
            radioBearerSetup-v3a0ext
            v4N<del>n</del>onCriticalExtensions
                                           SEQUENCE {
                radioBearerSetup-r3-r4-ext
                                                   RadioBearerSetup-r3-r4-ext-IEs,
                nonCriticalExtensions
                                               SEQUENCE {} OPTIONAL
                OPTIONAL
           OPTIONAL
    later-than-r3
                                   SEQUENCE {
       rrc-TransactionIdentifier
                                       RRC-TransactionIdentifier,
        criticalExtensions
                                       CHOICE {
           r4
                                           SEQUENCE {
                radioBearerSetup-r4
                                               RadioBearerSetup-r4-IEs,
                                               SEQUENCE {}
                nonCriticalExtensions
                                                               OPTIONAL
            },
            criticalExtensions
                                           SEQUENCE { }
    }
}
```

```
RadioBearerSetup-r3-IEs ::= SEQUENCE {
     - User equipment IEs
        rrc-TransactionIdentifier
                                         RRC-TransactionIdentifier,
                                         IntegrityProtectionModeInfo
        integrityProtectionModeInfo
                                                                              OPTIONAL,
        cipheringModeInfo
                                         CipheringModeInfo
                                                                              OPTIONAL,
        activationTime
                                         ActivationTime
                                                                              OPTIONAL,
        new-U-RNTI
                                         U-RNTI
                                                                              OPTIONAL,
       new-C-RNTI
                                         C-RNTI
                                                                              OPTIONAL,
        rrc-StateIndicator
                                         RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff
                                         UTRAN-DRX-CycleLengthCoefficient
    -- UTRAN mobility IEs
        ura-Identity
                                         URA-Identity
                                                                              OPTIONAL.
    -- Core network IEs
        cn-InformationInfo
                                         CN-InformationInfo
                                                                              OPTIONAL,
    -- Radio bearer IEs
        srb-InformationSetupList
                                         SRB-InformationSetupList
                                                                              OPTIONAL,
        rab-InformationSetupList
                                         RAB-InformationSetupList
                                                                              OPTIONAL,
        rb-InformationAffectedList
                                         RB-InformationAffectedList
                                                                              OPTIONAL,
        {\tt dl-CounterSynchronisationInfo} \quad {\tt DL-CounterSynchronisationInfo}
                                                                              OPTIONAL,
    -- Transport channel IEs
        ul-CommonTransChInfo
                                         UL-CommonTransChInfo
                                                                              OPTIONAL,
                                                                              OPTIONAL,
        ul-deletedTransChInfoList
                                         UL-DeletedTransChInfoList
        ul-AddReconfTransChInfoList
                                         UL-AddReconfTransChInfoList
                                                                              OPTIONAL,
        modeSpecificTransChInfo
                                         CHOICE {
                                             SEQUENCE {
            fdd
                                                 CPCH-Set.ID
                cpch-SetID
                                                                              OPTIONAL.
                addReconfTransChDRAC-Info
                                                 DRAC-StaticInformationList OPTIONAL
            },
            tdd
                                             NULL
                                                                              OPTIONAL.
        dl-CommonTransChInfo
                                        DL-CommonTransChInfo
                                                                              OPTIONAL,
        dl-DeletedTransChInfoList
                                         DL-DeletedTransChInfoList
                                                                              OPTIONAL,
        dl-AddReconfTransChInfoList
                                        DL-AddReconfTransChInfoList
                                                                              OPTIONAL,
    -- Physical channel IEs
        frequencyInfo
                                         FrequencyInfo
                                                                              OPTIONAL,
        maxAllowedUL-TX-Power
                                         MaxAllowedUL-TX-Power
                                                                              OPTIONAL,
        ul-ChannelRequirement
                                         UL-ChannelRequirement
                                                                              OPTIONAL,
        modeSpecificPhysChInfo
                                         CHOICE {
            fdd
                                             SEOUENCE {
                dl-PDSCH-Information
                                                 DL-PDSCH-Information
                                                                              OPTIONAL
            tdd
                                             NIII.I.
        dl-CommonInformation
                                         DL-CommonInformation
                                                                              OPTIONAL,
        dl-InformationPerRL-List
                                         DL-InformationPerRL-List
                                                                              OPTIONAL
}
RadioBearerSetup-v3a0ext ::= SEQUENCE
    new-DSCH-RNTI
                                         DSCH-RNTI
                                                                              OPTIONAL
RadioBearerSetup-r3-r4-ext-IEs ::= SEQUENCE {
    -- Physical channel IEs
    -- The following IE extends SSDT-Information, which is included in
    -- DL-CommonInformation. FDD only.
                                         SSDT-UL-r4
    ssdt-UL
                                                                              OPTIONAL
}
RadioBearerSetup-r4-IEs ::= SEQUENCE {
    -- User equipment IEs
        {\tt integrityProtectionModeInfo}
                                         IntegrityProtectionModeInfo
                                                                              OPTIONAL,
        cipheringModeInfo
                                         CipheringModeInfo
                                                                              OPTIONAL,
        activationTime
                                         ActivationTime
                                                                              OPTIONAL,
       new-U-RNTI
                                         U-RNTI
                                                                              OPTIONAL,
       new-C-RNTT
                                         C-RNTT
                                                                              OPTIONAL.
       new-DSCH-RNTI
                                         DSCH-RNTI
                                                                              OPTIONAL,
                                         RRC-StateIndicator,
        rrc-StateIndicator
        utran-DRX-CycleLengthCoeff
                                         UTRAN-DRX-CycleLengthCoefficient
                                                                              OPTIONAL,
    -- UTRAN mobility IEs
       ura-Identity
                                         URA-Identity
                                                                              OPTIONAL,
    -- Core network IEs
        cn-InformationInfo
                                         CN-InformationInfo
                                                                              OPTIONAL,
    -- Radio bearer IEs
        srb-InformationSetupList
                                         SRB-InformationSetupList
                                                                              OPTIONAL,
        rab-InformationSetupList
                                         RAB-InformationSetupList-r4
                                                                              OPTIONAL,
        rb-InformationAffectedList
                                         RB-InformationAffectedList
                                                                              OPTIONAL,
    -- Transport channel IEs
                                         UL-CommonTransChInfo
                                                                              OPTIONAL,
        ul-CommonTransChInfo
```

```
ul-deletedTransChInfoList
                                       UL-DeletedTransChInfoList
                                                                            OPTIONAL,
        ul-AddReconfTransChInfoList
                                        UL-AddReconfTransChInfoList
                                                                            OPTIONAL,
        modeSpecificTransChInfo
                                        CHOICE {
            fdd
                                            SEQUENCE {
                cpch-SetID
                                                CPCH-SetID
                                                                            OPTIONAL,
                addReconfTransChDRAC-Info
                                                DRAC-StaticInformationList OPTIONAL
            },
            tdd
                                           NULL
                                                                            OPTIONAL,
        dl-CommonTransChInfo
                                        {\tt DL-CommonTransChInfo-r4}
                                                                            OPTIONAL,
        dl-DeletedTransChInfoList
                                        DL-DeletedTransChInfoList
                                                                            OPTIONAL,
        dl-AddReconfTransChInfoList
                                       DL-AddReconfTransChInfoList
                                                                            OPTIONAL,
    -- Physical channel IEs
        frequencyInfo
                                        FrequencyInfo
                                                                            OPTIONAL,
        maxAllowedUL-TX-Power
                                        MaxAllowedUL-TX-Power
                                                                            OPTIONAL,
                                        UL-ChannelRequirement-r4
        ul-ChannelRequirement
                                                                            OPTIONAL,
        {\tt modeSpecificPhysChInfo}
                                        CHOICE {
            fdd
                                            SEQUENCE {
                dl-PDSCH-Information
                                                DL-PDSCH-Information
                                                                            OPTIONAL
            },
            tdd
                                            NULL
        dl-CommonInformation
                                        DL-CommonInformation-r4
                                                                            OPTIONAL,
        dl-InformationPerRL-List
                                       DL-InformationPerRL-List-r4
                                                                            OPTIONAL
}
__ ****************************
-- TRANSPORT CHANNEL RECONFIGURATION
__ *****************
TransportChannelReconfiguration ::= CHOICE {
                                    SEQUENCE {
   r3
        transportChannelReconfiguration-r3
                                        {\tt TransportChannelReconfiguration-r3-IEs}\,,
                                           SEQUENCE {
        v3a0nonCriticalExtensions
            transportChannelReconfiguration-v3a0ext
                                        TransportChannelReconfiguration-v3a0ext,
            v4NnonCriticalExtensions
                                                SEQUENCE {
                transportChannelReconfiguration-r3-r4-ext
                                                TransportChannelReconfiguration-r3-r4-ext-IEs,
                                                SEQUENCE { } OPTIONAL
                nonCriticalExtensions
                   OPTIONAL
                OPTIONAL
    later-than-r3
                                    SEQUENCE {
        rrc-TransactionIdentifier
                                        RRC-TransactionIdentifier,
                                        CHOICE {
        criticalExtensions
                                            SEQUENCE {
           r4
                transportChannelReconfiguration-r4
                                                TransportChannelReconfiguration-r4-IEs,
                nonCriticalExtensions
                                                SEQUENCE {}
                                                                OPTIONAL
            },
            criticalExtensions
                                            SEQUENCE {}
        }
    }
}
TransportChannelReconfiguration-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier
                                        RRC-TransactionIdentifier,
        integrityProtectionModeInfo
                                        IntegrityProtectionModeInfo
                                                                            OPTIONAL.
                                                                            OPTIONAL,
        cipheringModeInfo
                                        CipheringModeInfo
        activationTime
                                        ActivationTime
                                                                            OPTIONAL,
        new-U-RNTI
                                        U-RNTI
                                                                            OPTIONAL,
        new-C-RNTI
                                        C-RNTI
                                                                            OPTIONAL,
        rrc-StateIndicator
                                        RRC-StateIndicator,
       utran-DRX-CycleLengthCoeff
                                       UTRAN-DRX-CycleLengthCoefficient
                                                                            OPTIONAL.
    -- Core network IEs
       cn-InformationInfo
                                        CN-InformationInfo
                                                                            OPTIONAL,
    -- UTRAN mobility IEs
       ura-Identity
                                        URA-Identity
                                                                            OPTIONAL.
    -- Radio bearer IEs
        dl-CounterSynchronisationInfo DL-CounterSynchronisationInfo
                                                                            OPTIONAL,
```

```
-- Transport channel IEs
                                        UL-CommonTransChInfo
        ul-CommonTransChInfo
                                                                              OPTIONAL,
                                      UL-AddReconfTransChInfoList
        ul-AddReconfTransChInfoList
                                                                             OPTIONAL,
        modeSpecificTransChInfo
                                        CHOICE {
            fdd
                                             SEQUENCE {
                                                 CPCH-SetID
                cpch-SetID
                                                                              OPTIONAL,
                addReconfTransChDRAC-Info
                                                 DRAC-StaticInformationList OPTIONAL
            },
            tdd
                                             NULL
                                                                              OPTIONAL,
        dl-CommonTransChInfo
                                        DL-CommonTransChInfo
                                                                              OPTIONAL,
        dl-AddReconfTransChInfoList
                                        DL-AddReconfTransChInfoList
                                                                              OPTIONAL.
    -- Physical channel IEs
        frequencyInfo
                                        FrequencyInfo
                                                                             OPTIONAL,
        maxAllowedUL-TX-Power
                                        MaxAllowedUL-TX-Power
                                                                              OPTIONAL,
        ul-ChannelRequirement
                                        UL-ChannelRequirement
                                                                             OPTIONAL,
        modeSpecificPhysChInfo
                                        CHOICE {
            fdd
                                             SEQUENCE {
                dl-PDSCH-Information
                                                 DL-PDSCH-Information
                                                                             OPTIONAL
            },
            tdd
                                        NULL
        dl-CommonInformation
                                        DL-CommonInformation
                                                                              OPTIONAL,
        dl-InformationPerRL-List
                                        DL-InformationPerRL-List
                                                                              OPTIONAL
}
TransportChannelReconfiguration-v3a0ext ::= SEQUENCE {
    new-DSCH-RNTI
                                         DSCH-RNTI
                                                                              OPTIONAL
TransportChannelReconfiguration-r3-r4-ext-IEs ::= SEQUENCE {
    -- Physical channel IEs
    -- The following IE extends SSDT-Information, which is included in
    -- \operatorname{DL-CommonInformation}. FDD only.
    ssdt-UL
                                         SSDT-UL-r4
                                                                             OPTIONAL
}
TransportChannelReconfiguration-r4-IEs ::= SEQUENCE {
    -- User equipment IEs
        \verb|integrity| \verb|Protection| ModeInfo|
                                        IntegrityProtectionModeInfo
                                                                              OPTIONAL,
        cipheringModeInfo
                                         CipheringModeInfo
                                                                              OPTIONAL,
        activationTime
                                        ActivationTime
                                                                              OPTIONAL,
       new-U-RNTI
                                        U-RNTI
                                                                              OPTIONAL,
       new-C-RNTI
                                        C-RNTI
                                                                              OPTIONAL,
       new-DSCH-RNTI
                                        DSCH-RNTI
                                                                              OPTIONAL,
       rrc-StateIndicator
                                        RRC-StateIndicator,
                                        UTRAN-DRX-CycleLengthCoefficient
        utran-DRX-CycleLengthCoeff
                                                                             OPTIONAL.
    -- Core network IEs
        cn-InformationInfo
                                        CN-InformationInfo
                                                                              OPTIONAL,
    -- UTRAN mobility IEs
       ura-Identity
                                        URA-Identity
                                                                              OPTIONAL,
    -- Radio bearer IEs
        rb-WithPDCP-InfoList
                                        RB-WithPDCP-InfoList
                                                                              OPTIONAL,
    -- Transport channel IEs
        ul-CommonTransChInfo
                                        UL-CommonTransChInfo
                                                                              OPTIONAL,
        ul-AddReconfTransChInfoList
                                        {\tt UL-AddReconfTransChInfoList}
                                                                              OPTIONAL,
        modeSpecificTransChInfo
                                        CHOICE {
                                            SEQUENCE {
            fdd
                cpch-SetID
                                                 CPCH-Set.ID
                                                                              OPTIONAL.
                addReconfTransChDRAC-Info
                                                 DRAC-StaticInformationList OPTIONAL
            },
            tdd
                                             NULL
                                                                              OPTIONAL,
        dl-CommonTransChInfo
                                        DL-CommonTransChInfo-r4
                                                                              OPTIONAL,
        dl-AddReconfTransChInfoList
                                        DL-AddReconfTransChInfoList
                                                                             OPTIONAL,
    -- Physical channel IEs
        frequencyInfo
                                         FrequencyInfo
                                                                              OPTIONAL,
        maxAllowedUL-TX-Power
                                        MaxAllowedUL-TX-Power
                                                                              OPTIONAL,
        ul-ChannelRequirement
                                        UL-ChannelRequirement-r4
                                                                             OPTIONAL,
        modeSpecificPhysChInfo
                                        CHOICE {
                                             SEQUENCE {
            fdd
                                                 DL-PDSCH-Information
                dl-PDSCH-Information
                                                                             OPTIONAL
            },
            tdd
                                        NIII.I.
        dl-CommonInformation
                                        DL-CommonInformation-r4
                                                                             OPTIONAL,
        dl-InformationPerRL-List
                                        DL-InformationPerRL-List-r4
                                                                             OPTIONAL
}
```

11.3 Information element definitions

DRAC-SysInfo ::=

transmissionProbability
maximumBitRate

DRAC-SysInfoList ::=

DRAC-SysInfoList ::=

DRAC-SysInfoList ::=

DSCH-RNTI ::=

BIT STRING (SIZE (12))

BIT STRING (SIZE (32))

13.4.3a DSCH_RNTI

This variable stores the assigned DSCH-RNTI for this UE when in CELL DCH state.

Information Element/Group	Need	<u>Multi</u>	Type and	Semantics description
<u>name</u>			<u>reference</u>	
DSCH-RNTI	<u>OP</u>		DSCH-RNTI	Cleared when entering UTRA
			10.3.3.8	RRC connected mode when
				not otherwise stated in the
				procedure.
				Cleared when leaving UTRA
				RRC connected mode.

CHANGE REQUEST														
		25	.331	CR	1346		жrev	r1	ж	Curren	t vers	sion:	3.9.0	¥
For HELP	on us	sing	this for	m, see	bottom	of this	s page o	r look i	at th	e pop-ui	o text	over	the ₩ syı	mbols.
Proposed chai					SIM		/UE <mark>X</mark>			ccess Ne				
Title:	H	Со	rrectio	n to UE	ld for [DSCH								
Source:	ж	TS	G-RAN	WG2										
Work item cod	le:♯	TE	l							Da	te: ೫	21	Feb 2002	
Category: # F 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) D (editorial modification) C (functional														
Reason for cha	Reason for change: According to the MAC specification (TS 25.321), the DSCH is a common transport channel and therefore it is specified that the U-RNTI is used only in DL for DCCH mapped on common transport channels. In the case of DTCH mapped on common transport channels including DSCH it is assumed that C-RNTI shall be used. However in RRC specification, the C-RNTI is not available in CELL_DCH. With the current specifications DSCH is not working.							nly in DL mapped						
Summary of cl	Summary of change: # It is proposed to create a new 16 bits UE Id called DSCH-RNTI to be used for DSCH when UEs are in CELL_DCH. The handling of C-RNTI for RACH, FACH CPCH for UEs in CELL_FACH will be left unchanged. This new IE is introduced the DL RB control messages using the non-critical extension mechanism. The DSCH-RNTI is also introduced in TDD capacity request and shared channel allocation messages.						FACH, duced in The							
					act and		: CH han	dling						
« Correction to a function where the specification was :														
 Containing some contradictions. 														
										ke indica ctionality			CR, would e. »	d affect
Consequences not approved:		ж	DSC	H does	not wo	rk pro	perly							
Clauses affect	ted:	ж		.26, 10									22, 10.2.2 1.2, 11.3,	
Other specs		940	Y O	thar co	re spec	ificatio	ne ⁶	f 25	221	25 401	25.4	123		

affected:		Test specifications O&M Specifications	25.331 v4.3.0, CR 1347
Other comments:	\mathfrak{H}		

How to create CRs using this form:

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

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

8.2.2.3 Reception of RADIO BEARER SETUP or RADIO BEARER RECONFIGURATION or RADIO BEARER RELEASE or TRANSPORT CHANNEL RECONFIGURATION or PHYSICAL CHANNEL RECONFIGURATION message by the UE

The UE shall be able to receive any of the following messages:

- RADIO BEARER SETUP message; or
- RADIO BEARER RECONFIGURATION message; or
- RADIO BEARER RELEASE message; or
- TRANSPORT CHANNEL RECONFIGURATION message; or
- PHYSICAL CHANNEL RECONFIGURATION message;

and perform a hard handover, even if no prior UE measurements have been performed on the target cell and/or frequency.

If the UE receives:

- a RADIO BEARER SETUP message; or
- a RADIO BEARER RECONFIGURATION message; or
- a RADIO BEARER RELEASE message; or
- a TRANSPORT CHANNEL RECONFIGURATION message; or
- a PHYSICAL CHANNEL RECONFIGURATION message:

it shall:

- set the variable ORDERED_RECONFIGURATION to TRUE;
- perform the physical layer synchronisation procedure as specified in [29];
- act upon all received information elements as specified in subclause 8.6, unless specified in the following and perform the actions below.

The UE may first release the physical channel configuration used at reception of the reconfiguration message. The UE shall then:

- in FDD, if the IE "PDSCH code mapping" is included but the IE "PDSCH with SHO DCH Info" is not included and if the DCH has only one link in its active set:
 - act upon the IE "PDSCH code mapping" as specified in subclause 8.6; and
 - infer that the PDSCH will be transmitted from the cell from which the downlink DPCH is transmitted.
- enter a state according to subclause 8.6.3.3.

In case the UE receives a RADIO BEARER RECONFIGURATION message including the IE "RB information to reconfigure" that only includes the IE "RB identity", the UE shall:

- handle the message as if IE "RB information to reconfigure" was absent.

NOTE: The RADIO BEARER RECONFIGURATION message always includes the IE "RB information to reconfigure". UTRAN has to include it even if it does not require the reconfiguration of any RB.

If after state transition the UE enters CELL_DCH state, the UE shall, after the state transition:

- remove any C-RNTI from MAC;
- clear the variable C_RNTI.

In FDD, If after state transition the UE leaves CELL_DCH state, the UE shall, after the state transition:

- remove any DSCH-RNTI from MAC;
- clear the variable DSCH RNTI.

If the UE was in CELL_DCH state upon reception of the reconfiguration message and remains in CELL_DCH state, the UE shall:

- if the IE "Uplink DPCH Info" is absent, not change its current UL Physical channel configuration;
- if the IE "Downlink information for each radio link" is absent, not change its current DL Physical channel configuration.

If after state transition the UE enters CELL_FACH state, the UE shall, after the state transition:

- if the IE "Frequency info" is included in the received reconfiguration message:
 - select a suitable UTRA cell according to [4] on that frequency.
- if the IE "Frequency info" is not included in the received reconfiguration message:
 - select a suitable UTRA cell according to [4].
- if the received reconfiguration message included the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD), and the UE selects another cell than indicated by this IE or the received reconfiguration message did not include the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD):
 - initiate a cell update procedure according to subclause 8.3.1 using the cause "Cell reselection";
 - when the cell update procedure completed successfully:
 - if the UE is in CELL_PCH or URA_PCH state:
 - initiate a cell update procedure according to subclause 8.3.1 using the cause "Uplink data transmission";
 - proceed as below.
- start timer T305 using its initial value if timer T305 is not running and if periodical update has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity" in system information block type 1;
- select PRACH according to subclause 8.5.17;
- select Secondary CCPCH according to subclause 8.5.19;
- use the transport format set given in system information;
- if the IE "UTRAN DRX cycle length coefficient" is included in the same message:
 - ignore that IE and stop using DRX.
- if the contents of the variable C_RNTI is empty:
 - perform a cell update procedure according to subclause 8.3.1 using the cause "Cell reselection";
 - when the cell update procedure completed successfully:
 - if the UE is in CELL_PCH or URA_PCH state:
 - initiate a cell update procedure according to subclause 8.3.1 using the cause "Uplink data transmission";
 - proceed as below.

If the UE was in CELL_FACH state upon reception of the reconfiguration message and remains in CELL_FACH state, the UE shall:

- if the IE "Frequency info" is included in the received reconfiguration message:
 - select a suitable UTRA cell according to [4] on that frequency;
 - if the received reconfiguration message included the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD), and the UE selected another cell than indicated by this IE or the received reconfiguration message did not include the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD):
 - initiate a cell update procedure according to subclause 8.3.1 using the cause "cell reselection";
 - when the cell update procedure completed successfully:
 - proceed as below.

The UE shall transmit a response message as specified in subclause 8.2.2.4, setting the information elements as specified below. The UE shall:

- if the received reconfiguration message included the IE "Downlink counter synchronisation info":
 - re-establish RB2;
 - set the new uplink and downlink HFN of RB2 to MAX(uplink HFN of RB2 | downlink HFN of RB2) + 1;
 - increment by one the downlink and uplink HFN values for RB2;
 - calculate the START value according to subclause 8.5.9;
 - include the calculated START values for each CN domain in the IE "START list" in the IE "Uplink counter synchronisation info".
- if the received reconfiguration message did not include the IE "Downlink counter synchronisation info":
 - if the variable START_VALUE_TO_TRANSMIT is set:
 - include and set the IE "START" to the value of that variable.
 - if the variable START_VALUE_TO_TRANSMIT is not set and the IE "New U-RNTI" is included:
 - calculate the START value according to subclause 8.5.9;
 - include the calculated START values for each CN domain in the IE "START list" in the IE "Uplink counter synchronisation info".
- if the received reconfiguration message contained the IE "Ciphering mode info":
 - include and set the IE "Radio bearer uplink ciphering activation time info" to the value of the variable RB_UPLINK_CIPHERING_ACTIVATION_TIME_INFO.
- if the received reconfiguration message contained the IE "Integrity protection mode info" with the IE "Integrity protection mode command" set to "Modify":
 - include and set the IE "Uplink integrity protection activation info" to the value of the variable INTEGRITY PROTECTION ACTIVATION INFO.
- if the received reconfiguration message did not contain the IE "Ciphering activation time for DPCH" in IE "Ciphering mode info":
 - if prior to this procedure there exist no transparent mode RLC radio bearers:
 - if, at the conclusion of this procedure, the UE will be in CELL_DCH state; and
 - if, at the conclusion of this procedure, at least one transparent mode RLC radio bearer exists:
 - include the IE "COUNT-C activation time" and specify a CFN value for this IE.
 - if prior to this procedure there exists at least one transparent mode RLC radio bearer:

- if, at the conclusion of this procedure, no transparent mode RLC radio bearers exist:
 - include the IE "COUNT-C activation time" and specify a CFN value for this IE.
- set the IE "RRC transaction identifier" to the value of "RRC transaction identifier" in the entry for the received message in the table "Accepted transactions" in the variable TRANSACTIONS; and
- clear that entry;
- if the variable PDCP_SN_INFO is not empty:
 - include the IE "RB with PDCP information list" and set it to the value of the variable PDCP_SN_INFO.
- in TDD, if the procedure is used to perform a handover to a cell where timing advance is enabled, and the UE can calculate the timing advance value in the new cell (i.e. in a synchronous TDD network):
 - set the IE "Uplink Timing Advance" according to subclause 8.6.6.26.
- if the IE "Integrity protection mode info" was present in the received reconfiguration message:
 - start applying the new integrity protection configuration in the uplink for signalling radio bearer RB2 from and including the transmitted response message.

If after state transition the UE enters CELL_PCH or URA_PCH state, the UE shall, after the state transition and transmission of the response message:

- if the IE "Frequency info" is included in the received reconfiguration message:
 - select a suitable UTRA cell according to [4] on that frequency.
- if the IE "Frequency info" is not included in the received reconfiguration message:
 - select a suitable UTRA cell according to [4].
- prohibit periodical status transmission in RLC;
- remove any C-RNTI from MAC;
- clear the variable C_RNTI;
- start timer T305 using its initial value if timer T305 is not running and if periodical update has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity" in system information block type 1;
- select Secondary CCPCH according to subclause 8.5.19;
- if the IE "UTRAN DRX cycle length coefficient" is included in the same message:
 - 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.
- if the IE "UTRAN DRX cycle length coefficient" is not included in the same message:
 - set the variable INVALID_CONFIGURATION to TRUE.
- if the UE enters CELL_PCH state from CELL_DCH state, and the received reconfiguration message included the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD), and the UE selected another cell than indicated by this IE or the received reconfiguration message did not include the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD):
 - initiate a cell update procedure according to subclause 8.3.1 using the cause "cell reselection";
 - when the cell update procedure completed successfully:
 - the procedure ends.

- if the UE enters CELL_PCH state from CELL_FACH state, and the received reconfiguration message included the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD), and the UE selected another cell than indicated by this IE:
 - initiate a cell update procedure according to subclause 8.3.1 using the cause "cell reselection";
 - when the cell update procedure is successfully completed:
 - the procedure ends.
- if the UE enters URA_PCH state, and after cell selection the criteria for URA update caused by "URA reselection" according to subclause 8.3.1 is fulfilled:
 - initiate a URA update procedure according to subclause 8.3.1 using the cause "URA reselection";
 - when the URA update procedure is successfully completed:
 - the procedure ends.

8.2.7.3 Reception of a PHYSICAL SHARED CHANNEL ALLOCATION message by the UE

Upon reception of a "PHYSICAL SHARED CHANNEL ALLOCATION" message, if the message is received on the downlink SHCCH the UE shall:

- check the <u>DSCH-RNTIC RNTI</u> to see if the UE is addressed by the message;
- if the UE is addressed by the message, or if the message is received on the downlink DCCH:
 - perform the following actions.
- otherwise:
 - ignore the message.
- act upon all received information elements as specified in subclause 8.6, unless specified otherwise in the following:
- if the IE "ISCP Timeslot list" is included:
 - store the timeslot numbers given there for future Timeslot ISCP measurements and reports.
- if the IE "PDSCH capacity allocation info" is included:
 - configure the physical resources used for the downlink CCTrCH given by the IE "TFCS ID" according to the following:
 - if the CHOICE "Configuration" has the value "Old configuration":
 - if the UE has stored a PDSCH configuration with the identity given by the IE "PDSCH Identity":
 - configure the physical resources according to that configuration.
 - otherwise:
 - ignore the IE "PDSCH capacity allocation info".
 - if the CHOICE "Configuration" has the value "New configuration":
 - configure the physical resources according to the information given in IE "PDSCH Info". If IE "Common timeslot info" or IE "PDSCH timeslots and codes" IE are not present in IE "PDSCH Info":
 - reuse the configuration specified in the previous "PHYSICAL SHARED CHANNEL ALLOCATION" message for this CCTrCH.
 - if the IE "PDSCH Identity" is included:
 - store the new configuration using that identity.
 - start using the new configuration at the CFN specified by the IE "Allocation activation time", and use that for the duration given by the IE "Allocation duration";
 - if the IE "Confirm request" has the value "Confirm PDSCH" and IE "PDSCH Identity" is included in IE "PDSCH capacity allocation info":
 - initiate the PUSCH CAPACITY REQUEST procedure as described in subclause 8.2.8.
 - if the IE "PUSCH capacity allocation info" is included:
 - stop the timer T310, if running;
 - if the CHOICE "PUSCH allocation" has the value "PUSCH allocation pending":
 - start the timer T311.
 - if the CHOICE "PUSCH allocation" has the value "PUSCH allocation assignment":

- stop the timer T311, if running;
- configure the physical resources used for the uplink CCTrCH given by the IE "TFCS ID" according to the following:
 - if the CHOICE "Configuration" has the value "Old configuration":
 - if the UE has stored a PUSCH configuration with the identity given by the IE "PUSCH Identity":
 - configure the physical resources according to that configuration.
 - otherwise:
 - ignore the IE "PUSCH capacity allocation info".
 - if the CHOICE "Configuration" has the value "New configuration", the UE shall:
 - configure the physical resources according to the information given in IE "PUSCH Info". If IE
 "Common timeslot info" or IE "PUSCH timeslots and codes" is not present in IE "PUSCH Info":
 - reuse the configuration specified in the previous "PHYSICAL SHARED CHANNEL ALLOCATION" message for this CCTrCH.
 - if the IE "PUSCH Identity" is included:
 - store the new configuration using that identity.
- start using the new configuration at the CFN specified by the IE "Allocation activation time", and use that for the duration given by the IE "Allocation duration";
- if the IE "Traffic volume report request " is included:
 - initiate the PUSCH CAPACITY REQUEST procedure as described in subclause 8.2.8 at the time indicated by the IE "Traffic volume report request".
- if the IE "Confirm request" has the value "Confirm PUSCH" and IE "PUSCH Identity" is included in IE "PUSCH capacity allocation info":
 - initiate the PUSCH CAPACITY REQUEST procedure as described in subclause 8.2.8.
- determine the TFCS subset and hence the TFCI values which are possible given the PUSCH allocation for that CCTrCH;
- configure the MAC-c/sh in the UE with this TFCS restriction if necessary;
- transmit USCH Transport Block Sets as required, within the TFCS limits given by the PUSCH allocation.

NOTE: If the UE has just entered a new cell and System Information Block Type 6has not yet been scheduled, PUSCH/PDSCH information should be specified in the allocation message.

The UE shall:

- clear the entry for the PHYSICAL SHARED CHANNEL ALLOCATION message in the table "Accepted transactions" in the variable TRANSACTIONS;
- and the procedure ends.

8.6.3.9 New C-RNTI

If the IE "New C-RNTI" is included, the UE shall:

- store the value in the variable C_RNTI, replacing any old stored value;
- use that C-RNTI when using common transport channels of type RACH, FACH and CPCH in the current cell.

8.6.3.9a New DSCH-RNTI

If the IE "New DSCH-RNTI" is included, the UE shall:

- In FDD, if the UE will be in CELL_DCH at the end of the procedure where the received message included this IE, and
- if the UE supports DSCH as indicated in the IE "Physical Channel Capability" included in the IE "UE Radio Access Cabability":
 - store the value in the variable DSCH_RNTI, replacing any old stored value;
 - use that DSCH-RNTI when using common transport channels of type DSCH in the current cell.
- In TDD, if the UE will be in CELL DCH or CELL FACH at the end of the procedure where the received message included this IE, and
- if the UE supports DSCH or USCH as indicated in the IE "Physical Channel Capability" included in the IE "UE Radio Access Cabability":
 - store the value in the variable DSCH_RNTI, replacing any old stored value;
 - use that DSCH-RNTI when using SHCCH signalling in the current cell.

8.6.6.9 PDSCH with SHO DCH Info (FDD only)

If the IE "PDSCH with SHO DCH Info" is included, the UE shall:

- if the variable DSCH_RNTI is empty:
 - set the variable INVALID_CONFIGURATION to TRUE;
- configure itself to receive the PDSCH from the specified radio link within the active set identified by the IE "DSCH radio link identifier";
- if the TFCI has a 'hard' split:
 - if the IE "TFCI(field2) combining set" is included:
 - configure the Layer 1 to combine soft only the DPCCH TFCI(field 2) of the radio links within the active set which are identified by the IE "Radio link identifier" in the IE "TFCI(field2) Combining set".
 - if the IE "TFCI(field2) combining set" is not included:
 - configure the L1 to combine soft the DPCCH TFCI(field 2) of all radio links within the active set.

8.6.6.10 PDSCH code mapping (FDD only)

If the IE "PDSCH code mapping" is included, the UE shall:

- if the variable DSCH_RNTI is empty:
 - set the variable INVALID_CONFIGURATION to TRUE;
- use the scrambling code defined by the IE "DL Scrambling Code" to receive the PDSCH;
- if the IE choice "signalling method" is set to 'code range':
 - map the TFCI(field2) values to PDSCH codes in the following way:
 - for the first group of the IE "PDSCH code mapping":
 - if the value of the IE "multi-code info" equals 1:
 - map the TFCI(field 2) = 0 to the PDSCH code specified by the IE "Spreading factor" and the code number given by the IE "Code number (for PDSCH code) start";
 - map TFCI(field 2) = 1 to the PDSCH code specified by the IE "Spreading factor" and the code number given by the IE "Code number (for PDSCH code) start"+1;
 - continue this process with unit increments in the value of TFCI(field 2) mapped to unit increments in code number until the code number equals the value of the IE "Code number (for PDSCH code) stop".
 - if the value of the IE "multi-code info" is greater than 1:
 - if the value of the difference between the IE "Code number (for PDSCH code) start" and the IE "Code number (for PDSCH code) stop" + 1 is not a multiple of the value of the IE "multi-code info":
 - set the variable INVALID_CONFIGURATION to TRUE.
 - map TFCI (field 2)=0 to a set of PDSCH contiguous codes. This code set is specified by the IE "Spreading factor" and code numbers between 'code number start' denoted by the IE "Code number (for PDSCH code) start" and 'code number stop' given by IE "Code number (for PDSCH code) start" 1 + the value of the IE "multi-code info";
 - continue this process with unit increments in the value of TFCI(field 2) mapped to a set of contiguous codes. This code set is specified by the IE "Spreading factor" and code numbers between 'code number start' = 'code number stop' +1 of the previous TFCI(field2) and 'code number stop'='code number start' 1 + the value of the IE "multi-code info";

- stop this process when the 'code number stop' associated to the last TFCI(field2) equals the value of the IE "Code number (for PDSCH code) stop".
- for each of the next groups included in the IE "PDSCH code mapping":
 - continue the process in the same way as for the first group with the TFCI(field 2) value used by the UE to construct its mapping table starting at the largest TFCI(field 2) value reached in the previous group plus one.
- if the value of the IE "Code number (for PDSCH code) start" equals the value of the IE "Code number (for PDSCH code) stop" (as may occur when mapping the PDSCH root code to a TFCI (field 2) value):
 - consider this as defining the mapping between the channelisation code and a single TFCI (i.e., TFCI(field 2) shall not be incremented twice).
- if the IE choice "signalling method" is set to 'TFCI range':
 - map the TFCI(field2) values to PDSCH codes in the following way:
 - for the first group of the IE "DSCH mapping":
 - map each of the TFCI(field 2) between 0 and the value of the IE "Max TFCI(field2)" to the PDSCH code specified by the IE "Spreading factor (for PDSCH code)" and the code number given by the IE "Code number (for PDSCH code)".
 - for each of the next groups included in the IE "DSCH mapping":
 - map each of the TFCI(field 2) between the IE "Max TFCI(field2) value" specified in the last group plus one and the specified IE "Max TFCI(field2)" in the current group to the PDSCH code specified by the IE "Spreading factor (for PDSCH code)" and the code number given by the IE "Code number (for PDSCH code)".
 - if the value of the IE "multi-code info" is greater than 1:
 - map each value of TFCI (field 2) to a set of PDSCH contiguous codes starting at the channelisation code denoted by the 'code number' parameter and including all codes with code numbers up to and including 'code number' 1 + the value of the IE "multi-code info".
- if the IE choice "signalling method" is set to 'Explicit'
 - map the TFCI(field2) values to PDSCH codes in the following way:
 - for the first instance on the IE "PDSCH code info":
 - apply the PDSCH code specified by the IE "Spreading factor (for PDSCH code)" and the code number given by the IE "Code number (for PDSCH code)" for TFCI(field2)=0.
 - for the second instance of the IE "PDSCH code info":
 - apply the PDSCH code specified by the IE "Spreading factor (for PDSCH code)" and the code number given by the IE "Code number (for PDSCH code)" for TFCI(field2)=1.
 - continue in a similar way for each next instance of the IE "PDSCH code info";
 - if the value of the IE "multi-code info" is greater than 1, then
 - map each value of TFCI (field 2) to a set of PDSCH contiguous codes starting at the channelisation code denoted by the 'code number' parameter and including all codes with code numbers up to and including 'code number' 1 + the value of the IE "multi-code info".
- if the IE choice "signalling method" is set to 'Replace':
 - map the TFCI(field2) values to PDSCH codes in the following way:
 - for each instance of the IE "Replaced PDSCH code":

- replace the corresponding PDSCH code for the TFCI(field2) identified by the IE "TFCI(field2)" with the new code specified by the IE "Spreading factor (for PDSCH code)" and the code number given by the IE "Code number (for PDSCH code)".
- if the value of the IE "multi-code info" is greater than 1:
 - map each value of TFCI (field 2) to a set of PDSCH contiguous codes starting at the channelisation code denoted by the 'code number' parameter and including all codes with code numbers up to and including 'code number' 1 + the value of the IE "multi-code info".

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	Information Element/Group name	Need	Multi	Type and reference	Semantics description
U-RNTI	Message Type	MP		Message	
U-RNTI				Туре	
10.3.3.47					
RRC transaction identifier Integrity check info Integrity protection mode info Integrity protection info Integrity protection mode info Integrity protection mode info Integrity protection info Integrity	U-RNTI	CV-CCCH			
Integrity check info CH Integrity check info Integrity protection mode info Integrity protection mode info Integrity protection mode info OP Integrity protection mode info Integrity protection mode info Ciphering mode info OP Ciphering mode info Ciphering mode info OP Ciphering mode info OP Ciphering mode info OP Ciphering mode info OP INTERVITIONAL CONTROLL OP INTERVITIONAL CONTROLL OP CRNTI INTERVITIONAL CONTROLL OP CRNTI INTERVITIONAL CONTROLL OP OSCH-RNTI INTERVITIONAL CONTROLL OP OSCH-RNTI INTERVITIONAL CONTROLL OP OSCH-RNTI INTERVITIONAL CONTROLL OP OP OP OP OP OP OP OP OP					
Integrity check info Integrity check info Integrity protection mode info Integrity protection mode info Integrity protection mode info OP Integrity protection mode info Integrity protection mode info Integrity protection mode info OP Ciphering mode info 10.3.3.19 Activation time MD Activation time MD Activation time 10.3.3.1 New U-RNTI New U-RNTI OP U-RNTI 10.3.3.47 New DSCH-RNTI OP DSCH-RNTI OP OP OP OP INTEGRITY INT	RRC transaction identifier	MP			
10.3.3.36 Integrity check info					
Integrity check info CH Integrity protection mode info OP Integrity protection mode info OP Ciphering mode info Ciphering mode info OP Ciphering mode info OP Ciphering mode info 10.3.3.19 Activation time MD Activation time MD Activation time info New U-RNTI OP OP U-RNTI OP SCH-RNTI OP DSCH-RNTI OP DSCH-RNTI OP DSCH-RNTI OP DSCH-RNTI OP OP UTRAN DRX cycle length coefficient Coefficient Coefficient COEfficient RC state Indicator (RB2, RB3 and RB4) RLC re-establish indicator (RB5 and upwards) RLC re-establish indicator (RB5 and upwards) RLC re-establish indicator (RB5 and upwards) CN Information Elements CN Information Elements UTRAN Information Elements URA identity OP RB information to release Ist OP RB information to release MP RB RB RB					
check info 10.3.3.16 Integrity protection mode info OP Integrity protection mode info Ciphering mode info OP Ciphering mode info OP Ciphering mode info OP Ciphering mode info 10.3.3.19 Activation time MD Activation time 10.3.3.1 New U-RNTI OP U-RNTI 10.3.3.47 New C-RNTI OP C-RNTI 10.3.3.8 RRC State Indicator MP RRC State Indicator MP RRC State Indicator UTRAN DRX cycle length coefficient Coefficient Coefficient Cre-establish indicator (RB2, RB3 and RB4) RLC re-establish indicator (RB5 and upwards) RLC re-establish indicator (RB5 and u					
10.3.3.16 Integrity protection mode info	Integrity check info	СН			
Integrity protection mode info OP Integrity protection mode info 10.3.3.19 Ciphering mode info 10.3.3.10 Activation time MD Activation time MD Activation time 10.3.3.1 New U-RNTI OP U-RNTI 10.3.3.47 New C-RNTI OP DEFAULT VALUE is "now" 10.3.3.8 New DSCH-RNTI 10.3.3.8 RRC State Indicator MP RRC State Indicator UTRAN DRX cycle length coefficient Coefficient UTRAN DRX cycle length coefficient UTRAN DRX Cycle length coefficient Coefficient RLC re-establish indicator (RB2, RB3 and RB4) RLC re-establish indicator (RB5 and upwards) RLC re-establish indicator (RB5 and upwards) RLC Information Elements CN Information Elements UTRAN Information Elements URA identity OP URA identity RB information to release list OP 1 to <maxrb> RB information to release MP RB</maxrb>					
Default value is "now" Default value is "n					
MP RRC State Indicator MP RRC State Indicator MP UTRAN DRX cycle length coefficient 10.3.3.49	Integrity protection mode info	OP			
10.3.3.19					
Ciphering mode info OP Ciphering mode info 10.3.3.5 Activation time MD Activation time 10.3.3.1 New U-RNTI OP U-RNTI 10.3.3.47 New C-RNTI New C-RNTI OP DSCH-RNTI 10.3.3.8 New DSCH-RNTI RRC State Indicator MP RRC State Indicator UTRAN DRX cycle length coefficient coefficient OP UTRAN DRX cycle length coefficient OP RLC re-establish indicator (RB2, RB3 and RB4) RLC re-establish indicator (RB5 and upwards) RLC re-establish indicator (RB5 and upwards) OP CN Information Elements CN Information info OP CN Information info OP UTRAN Information to release list OP RB information to release MP RB Information to release					
MD	Oin benien and inte	OD			
Activation time	Cipnering mode info	OP			
Activation time MD Activation time 10.3.3.1 New U-RNTI OP U-RNTI 10.3.3.47 New C-RNTI OP C-RNTI 10.3.3.8 New DSCH-RNTI 10.3.3.8 RRC State Indicator MP RRC State Indicator UTRAN DRX cycle length coefficient TORION COMPANY REC re-establish indicator (RB2, RB3 and RB4) RRC re-establish indicator (RB5 and upwards) MP RLC re-establish indicator (RB5 and upwards) RLC re-establish indicator (RB5 and upwards) RLC Information Elements CN Information info OP CN Information info UTRAN Information Elements URA identity OP URA identity PRB information to release list OP RB information to release MP OP Default value is "now" Information Indica.3.3.1 Default value is "now" Indica.3.3.1 Default value is "now" Indica.3.3.1 Default value is "now" Indica.3.3.1 Default value is "now" Indica.3.3.1 Default value is "now" Indica.3.3.1 Default value is "now" Indica.3.3.1 Default value is "now" Indica.3.3.4 RRC State Indicator I					
time 10.3.3.1	A stirestion times	MD			Default value is the suit
New U-RNTI	Activation time	IVID			Default value is now
10.3.3.47	Now II DNTI	OB			
New C-RNTI OP C-RNTI 10.3.3.8 New DSCH-RNTI 10.3.3.8a DSCH-RNTI 10.3.3.8a RRC State Indicator MP RRC State Indicator	New U-RNTI	OF			
New DSCH-RNTI	Now C PNTI	OB			
New DSCH-RNTI OP DSCH-RNTI 10.3.3.8a RRC State Indicator MP RRC State Indicator Indicator Indicator 10.3.3.10 UTRAN DRX cycle length coefficient OP UTRAN DRX cycle length coefficient 10.3.3.49 RLC re-establish indicator (RB2, RB3 and RB4) MP RLC re-establish indicator 10.3.3.35 RLC re-establish indicator (RB5 and upwards) MP RLC re-establish indicator 10.3.3.35 CN Information Elements CN Information info OP CN Information Info 10.3.1.3 UTRAN Information Elements URA identity 10.3.2.6 URA identity 10.3.2.6 RB information to release list OP 1 to (maxRB) >RB information to release MP RB	New C-RNTI	OF			
10.3.3.8a RRC State Indicator MP	Now DSCH DNTI	OB			
RRC State Indicator UTRAN DRX cycle length coefficient OP UTRAN DRX cycle length coefficient RLC re-establish indicator (RB2, RB3 and RB4) RLC re-establish indicator (RB5 and upwards) RLC re-establish indicator (RB5 and upwards) CN Information Elements CN Information info OP CN Information info UTRAN Information Elements URA identity OP URA identity RB information to release NP RB information to release MP RRC State Indicator 10.3.3.10 UTRAN INFORMATION Elements RB information to release MP RB RB RB RB	New DOCH-KINTI	<u> </u>			
UTRAN DRX cycle length coefficient OP UTRAN DRX cycle length coefficient 10.3.3.10 RLC re-establish indicator (RB2, RB3 and RB4) RLC re-establish indicator (RB5 and upwards) RLC re-establish indicator (RB5 indicator 10.3.3.35 RLC re-establish indicator (RB5 indicator 10.3.3.35 CN Information Elements CN Information info OP CN Information info UTRAN Information Elements URA identity OP URA identity OP URA identity 10.3.2.6 RB information to release list OP 1 to	RRC State Indicator	MP			
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coefficient Cycle length coefficient 10.3.3.49 RLC re-establish indicator (RB2, RB3 and RB4) RLC re-establish indicator (RB5 and upwards) RLC re-establish indicator (RB5 and upwards) RLC re-establish indicator 10.3.3.35 RLC re-establish indicator 10.3.3.35 CN Information Elements CN Information info OP CN Information info 10.3.1.3 UTRAN Information Elements URA identity OP URA identity 10.3.2.6 RB information to release list OP 1 to <maxrb> RB RB RB RB RB RB RB RB RB</maxrb>	UTRAN DRX cycle length	OP			
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RLC re-establish indicator (RB5 and upwards) RLC re-establish indicator (RB5 establish indicator 10.3.3.35 CN Information Elements CN Information info OP CN Information info 10.3.1.3 UTRAN Information Elements URA identity OP URA identity 10.3.2.6 RB information to release list OP 1 to				establish	
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and upwards) establish indicator 10.3.3.35 CN Information Elements CN Information info OP CN Information info 10.3.1.3 UTRAN Information Elements URA identity OP URA identity 10.3.2.6 RB information to release list OP 1 to <maxrb> RB information to release MP RB MP RB</maxrb>				10.3.3.35	
CN Information Elements CN Information info CN Information info OP CN Information info info 10.3.1.3 UTRAN Information Elements URA identity OP URA identity 10.3.2.6 RB information to release list OP 1 to	RLC re-establish indicator (RB5	MP		RLC re-	
10.3.3.35	and upwards)			establish	
CN Information Elements CN Information info OP CN Information info 10.3.1.3 UTRAN Information Elements URA identity OP URA identity 10.3.2.6 RB information to release list OP 1 to <maxrb> RB information to release NP RB RB RB</maxrb>				indicator	
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UTRAN Information Elements URA identity OP URA identity TOP OP URA identity 10.3.2.6 RB information to release list OP Top Top The state of the state					
Info 10.3.1.3	CN Information info	OP			
URA identity OP URA identity OP URA identity 10.3.2.6 RB information elements RB information to release list OP 1 to <maxrb> RB information to release RB information to release MP RB</maxrb>					
URA identity OP URA identity 10.3.2.6 RB information elements RB information to release list OP 1 to <maxrb> >RB information to release MP RB</maxrb>	LITEAN Information Flores			into 10.3.1.3	
RB information elements RB information to release list OP 1 to <maxrb> RB information to release RB information to release RB information to release RB information to release RB information to release</maxrb>		OB		LIDA idaatitu	
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RB information to release list OP 1 to <maxrb> > RB information to release MP RB</maxrb>	DR information claments			10.3.2.0	
<pre></pre>		OB	1 to		
>RB information to release MP RB	No initoffiation to felease list	OF			
	>RR information to release	MP	\IIIAAI\D>	RB	
	AND INITIALION TO TELEGISE	IVII		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 <maxrb></maxrb>		
>RB information to reconfigure	MP	KIIIdAINDS	RB information to reconfigure 10.3.4.18	
RB information to be affected list	OP	1 to <maxrb></maxrb>	10.3.4.10	
>RB information to be affected	MP	Smart	RB information to be affected 10.3.4.17	
Downlink counter synchronisation info	OP			
>RB with PDCP information list	ОР	1 to <maxrball RABs></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 ></maxtrch 		
>Deleted UL TrCH information	MP		Deleted UL TrCH information 10.3.5.5	
Added or Reconfigured TrCH information list	OP	1 to <maxtrch ></maxtrch 		
>Added or Reconfigured UL TrCH information	MP		Added or Reconfigure d UL TrCH information 10.3.5.2	
CHOICE mode >FDD	MP			
>>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)
Downlink transport channels DL Transport channel information common for all transport channels	OP		DL Transport channel information 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< 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 ></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	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.

10.2.22 PHYSICAL CHANNEL RECONFIGURATION

This message is used by UTRAN to assign, replace or release a set of physical channels used by a UE.

RLC-SAP: AM or UM Logical channel: DCCH Direction: UTRAN \rightarrow UE

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Message Type	MP		Message	
inicocago Typo	''''		Type	
UE Information Elements			. , , , ,	
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	
			10.3.3.19	
Ciphering mode info	OP		Ciphering	
			mode info	
	1		10.3.3.5	
Activation time	MD		Activation	Default value is "now"
			time 10.3.3.1	
New U-RNTI	OP		U-RNTI	
			10.3.3.47	
New C-RNTI	OP		C-RNTI	
N BOOK BUT	0.0		10.3.3.8	
New DSCH-RNTI	<u>OP</u>		DSCH-RNTI	
DDO Otata la disasta	MD		10.3.3.8a	
RRC State Indicator	MP		RRC State	
			Indicator	
UTRAN DRX cycle length	OP		10.3.3.10 UTRAN DRX	
coefficient	UP		cycle length	
Coefficient			coefficient	
			10.3.3.49	
CN Information Elements			10.5.5.45	
CN Information info	OP		CN	
Old illionilation illio			Information	
			info 10.3.1.3	
UTRAN mobility information				
elements				
URA identity	OP		URA identity	
•			10.3.2.6	
RB information elements				
Downlink counter	OP			
synchronisation info				
>RB with PDCP information list	OP	1 to		This IE is needed for each RB
		<maxrball< td=""><td></td><td>having PDCP in the case of</td></maxrball<>		having PDCP in the case of
		RABs>		lossless SRNS relocation
>>RB with PDCP information	MP		RB with	
			PDCP	
			information	
Dh. Ollinformatics steers			10.3.4.22	
PhyCH information elements	MD		F	Default value is the first
Frequency info	MD		Frequency	Default value is the existing
			info	value of frequency information
Unlink radio recourses			10.3.6.36	
Uplink radio resources			1	

Information Element/Group	Need	Multi	Type and reference	Semantics description
name	145			5 (); 1
Maximum allowed UL TX power	MD		Maximum	Default value is the existing
			allowed UL	value of the maximum allowed
			TX power	UL TX power
			10.3.6.39	
CHOICE channel requirement	OP			
>Uplink DPCH info			Uplink	
			DPCH info	
			10.3.6.88	
>CPCH SET Info			CPCH SET	
			Info	
			10.3.6.13	
>CPCH set ID			CPCH set ID	
7 0. 0			10.3.5.3	
Downlink radio resources				
CHOICE mode	MP			
>FDD				
>>Downlink PDSCH information	OP		Downlink	
22 BOWINING 1 BOOT I INCINICATION	O i		PDSCH	
			information	
			10.3.6.30	
>TDD			10.3.0.30	(no data)
Downlink information common	OP		Downlink	(110 data)
for all radio links			information	
TOT All TAGIO IITIKS			common for	
			all radio links	
B	0.0	1.	10.3.6.24	0 11 51:4
Downlink information per radio	OP	1 to		Send downlink information for
link list		<maxrl></maxrl>		each radio link
>Downlink information for each	MP		Downlink	
radio link			information	
			for each	
			radio link	
			10.3.6.27	

10.2.25 PHYSICAL SHARED CHANNEL ALLOCATION

NOTE: Only for TDD.

This message is used by UTRAN to assign physical resources to USCH/DSCH transport channels in TDD, for temporary usage by the UE.

RLC-SAP: UM on SHCCH, UM on DCCH

Logical channel: SHCCH or DCCH

Direction: UTRAN \rightarrow UE

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Message Type	MP		Message type	
CDSCH-RNTI	OP		C DSCH-RNTI 10.3.3.8 <u>a</u>	
RRC transaction identifier	MP		RRC transaction identifier 10.3.3.36	
Uplink timing advance Control	MD		Uplink Timing Advance Control 10.3.6.96	Default value is the existing value for uplink timing advance
PUSCH capacity allocation info	OP		PUSCH Capacity Allocation info 10.3.6.64	
PDSCH capacity allocation info	OP		PDSCH Capacity Allocation info 10.3.6.42	
Confirm request	MD		Enumerated(No Confirm, Confirm PDSCH, Confirm PUSCH)	Default value is No Confirm
Traffic volume report request	OP		Integer (0 255)	Indicates the number of frames between start of the allocation period and sending measurement report. The value should be less than the value for Allocation Duration.
ISCP Timeslot list	OP	1 to maxTS		
>Timeslot number	MP		Timeslot number 10.3.6.84	Timeslot numbers, for which the UE shall report the timeslot ISCP in PUSCH CAPACITY REQUEST message.
Request P-CCPCH RSCP	MP		Boolean	TRUE indicates that a Primary CCPCH RSCP measurement shall be reported by the UE in PUSCH CAPACITY REQUEST message.

10.2.26 PUSCH CAPACITY REQUEST

NOTE: Only for TDD.

This message is used by the UE for request of PUSCH resources to the UTRAN.

RLC-SAP: TM

Logical channel: SHCCH

Direction: UE \rightarrow UTRAN

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Message Type	MP		Message Type	
<u>CDSCH</u> -RNTI	OP		C DSCH-RNTI 10.3.3.8 <u>a</u>	
RRC transaction identifier	CV-ProtErr		RRC transaction identifier 10.3.3.36	
Traffic Volume	OP		Traffic Volume, measured results list 10.3.7.67	
Timeslot list	OP	1 to maxTS		
>Timeslot number	MP		Timeslot number 10.3.6.84	
>Timeslot ISCP	MP		Timeslot ISCP info 10.3.7.65	
Primary CCPCH RSCP	OP		Primary CCPCH RSCP info 10.3.7.54	
CHOICE Allocation confirmation	OP			
>PDSCH Confirmation			Integer(1hi PDSCHident ities)	
>PUSCH Confirmation			Integer(1hi PUSCHident ities)	
Protocol error indicator	MD		Protocol error indicator 10.3.3.27	Default value is FALSE
Protocol error information	CV-ProtErr		Protocol error information 10.3.8.12	

Condition	Explanation
ProtErr	This IE is mandatory present if the IE "Protocol error
	indicator" has the value "TRUE". Otherwise it is not
	needed.

10.2.27 RADIO BEARER RECONFIGURATION

This message is sent from UTRAN to reconfigure parameters related to a change of QoS. This procedure can also change the multiplexing of MAC, reconfigure transport channels and physical channels.

RLC-SAP: AM or UM Logical channel: DCCH Direction: UTRAN \rightarrow UE

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Message Type	MP		Message	
			Type	
UE Information elements				
RRC transaction identifier	MP		RRC	
			transaction	
			identifier	
			10.3.3.36	
Integrity check info	CH		Integrity	
			check info	
Lata with a mate attack and a late	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	l Oi		mode info	
			10.3.3.5	
Activation time	MD		Activation	Default value is "now"
Activation time	IVID		time 10.3.3.1	Beladit value is flow
New U-RNTI	OP		U-RNTI	
11011 5 111111	01		10.3.3.47	
New C-RNTI	OP		C-RNTI	
			10.3.3.8	
New DSCH-RNTI	<u>OP</u>		DSCH-RNTI	
			10.3.3.8a	
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	
CN information elements				
CN Information info	OP		CN	
			Information	
LITE AND TO A DESIGNATION OF THE PROPERTY OF T			info 10.3.1.3	
UTRAN mobility information elements				
URA identity	OP		URA identity	
OKA Identity	OF .		10.3.2.6	
RB information elements			10.0.2.0	
RAB information to reconfigure	OP	1 to <		
list		maxRABse		
		tup >		
>RAB information to reconfigure	MP		RAB	
guid			information	
			to	
			reconfigure	
			10.3.4.11	
RB information to reconfigure list	MP	1to		Although this IE is not always
		<maxrb></maxrb>		required, need is MP to align
				with ASN.1
>RB information to reconfigure	MP		RB	
			information	

Information Element/Group name	Need	Multi	Type and reference	Semantics description
			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	
TrCH Information Elements				
Uplink transport channels	0.0			
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 ></maxtrch 		
>Deleted UL TrCH information	MP		Deleted UL TrCH information 10.3.5.5	
Added or Reconfigured TrCH information list	OP	1 to <maxtrch ></maxtrch 		
>Added or Reconfigured UL TrCH information	MP		Added or Reconfigure d UL TrCH information 10.3.5.2	
CHOICE mode	OP			
>FDD				
>>CPCH set ID	OP		CPCH set ID 10.3.5.3	
>>Added or Reconfigured TrCH information for DRAC list	OP	1 to <maxtrch ></maxtrch 		
>>>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 ></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	

Information Element/Group name	Need	Multi	Type and reference	Semantics description
			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	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	MP	1 to <maxrl></maxrl>		Although this IE is not always required, need is MP to align with ASN.1
>Downlink information for each radio link	MP		Downlink information for each radio link 10.3.6.27	

10.2.30 RADIO BEARER RELEASE

This message is used by UTRAN to release a radio bearer. It can also include modifications to the configurations of transport channels and/or physical channels. It can simultaneously indicate release of a signalling connection when UE is connected to more than one CN domain.

RLC-SAP: AM or UM Logical channel: DCCH Direction: UTRAN \rightarrow UE

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Message Type	MP		Message Type	
UE Information Elements			. , , , ,	
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	
			10.3.3.19	
Ciphering mode info	OP		Ciphering	
			mode info	
A (' (' ('	MD		10.3.3.5	5 ()
Activation time	MD		Activation	Default value is "now"
New U-RNTI	OP		time 10.3.3.1 U-RNTI	
New U-RNTI	OP		10.3.3.47	
New C-RNTI	OP		C-RNTI	
New C-RIVII	OP		10.3.3.8	
New DSCH-RNTI	OP		DSCH-RNTI	
NEW BOOTT KIVII	<u> </u>		10.3.3.8a	
RRC State Indicator	MP		RRC State	
Third State maissie.			Indicator	
			10.3.3.10	
UTRAN DRX cycle length	OP		UTRAN DRX	
coefficient			cycle length	
			coefficient	
			10.3.3.49	
CN Information Elements				
CN Information info	OP		CN	
			Information	
		<u> </u>	info 10.3.1.3	
Signalling Connection release	OP		CN domain	
indication			identity	
			10.3.1.1	
UTRAN mobility information elements				
URA identity	OP		URA identity	
•			10.3.2.6	
RB Information Elements				
RAB information to reconfigure	OP	1 to <		
list		maxRABse		
> DAD information to reconfigure	MD	tup >	DAD	
>RAB information to reconfigure	MP		RAB information	
			to	
			reconfigure	
			10.3.4.11	
	I	1		I .

Information Element/Group name	Need	Multi	Type and reference	Semantics description
RB information to release list	MP	1 to <maxrb></maxrb>		
>RB information to release	MP		RB information to release 10.3.4.19	
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	ОР	1 to <maxrball RABs></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< 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 ></maxtrch 		
>Added or Reconfigured UL TrCH information	MP		Added or Reconfigure d UL TrCH information 10.3.5.2	
CHOICE mode	OP			
>>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)
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	

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Deleted TrCH information list	OP	1 to <maxtrch ></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			
>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	

10.2.33 RADIO BEARER SETUP

This message is sent by UTRAN to the UE to establish new radio bearer(s). It can also include modifications to the configurations of transport channels and/or physical channels.

RLC-SAP: AM or UM
Logical channel: DCCH

Direction: UTRAN \rightarrow UE

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Message Type	MP		Message	
			Туре	
UE Information Elements	NAD		DDO	
RRC transaction identifier	MP		RRC	
			transaction identifier	
			10.3.3.36	
Integrity check info	СН		Integrity	
g, cc			check info	
			10.3.3.16	
Integrity protection mode info	OP		Integrity	
			protection	
			mode info	
0:1:	0.0		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	IVID		time 10.3.3.1	Delault value is flow
New U-RNTI	OP		U-RNTI	
			10.3.3.47	
New C-RNTI	OP		C-RNTI	
			10.3.3.8	
New DSCH-RNTI	<u>OP</u>		DSCH-RNTI	
DD0.0:	145		10.3.3.8a	
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	
CN Information Elements				
CN Information info	OP		CN	
			Information	
LITE AN I was billion in farmer of an			info 10.3.1.3	
UTRAN mobility information elements				
URA identity	OP		URA identity	
O. O. Cidolliney] .		10.3.2.6	
RB Information Elements				
Signalling RB information to	OP	1 to		For each signalling radio
setup list		<maxsrbs< td=""><td></td><td>bearer established</td></maxsrbs<>		bearer established
		etup>		
>Signalling RB information to	MP		Signalling	
setup			RB information	
			to setup	
			10.3.4.24	
RAB information to setup list	OP	1 to	. 0.0	For each RAB established
		<maxrabs< td=""><td></td><td></td></maxrabs<>		
		etup>		
>RAB information for setup	MP		RAB	
			information	

Information Element/Group name	Need	Multi	Type and reference	Semantics description
			for setup 10.3.4.10	
RB information to be affected list	OP	1 to	10.0.1.10	
>RB information to be affected	MP	<maxrb></maxrb>	RB information to be affected	
Downlink counter synchronisation info	OP		10.3.4.17	
>RB with PDCP information list	OP	1 to <maxrball RABs></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	OB		III Transassi	
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< td=""><td>10.0.0.21</td><td></td></maxtrch<>	10.0.0.21	
>Deleted UL TrCH information	MP		Deleted UL TrCH information 10.3.5.5	
Added or Reconfigured TrCH information list	OP	1 to <maxtrch ></maxtrch 		
>Added or Reconfigured UL TrCH information	MP		Added or Reconfigure d UL TrCH information 10.3.5.2	
CHOICE mode	OP			
>FDD	0.0		00011 (10	
>>CPCH set ID	OP		CPCH set ID 10.3.5.3	
>>Added or Reconfigured TrCH information for DRAC list	OP	1 to <maxtrch ></maxtrch 		
>>>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 channels10.	
Deleted TrCH information list	OP	1 to <maxtrch< td=""><td>3.5.6</td><td></td></maxtrch<>	3.5.6	
>Deleted DL TrCH information	MP	>	Deleted DL	

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

10.2.50 TRANSPORT CHANNEL RECONFIGURATION

This message is used by UTRAN to configure the transport channel of a UE. This also includes a possible reconfiguration of physical channels. The message can also be used to assign a TFC subset and reconfigure physical channel.

RLC-SAP: AM or UM
Logical channel: DCCH

Direction: UTRAN \rightarrow UE

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Message Type	MP		Message	
			Туре	
UE Information Elements				
RRC transaction identifier	MP		RRC	
			transaction	
			identifier	
	011		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	OF		protection	
			mode info	
			10.3.3.19	
Ciphering mode info	OP		Ciphering	
o.pogo			mode info	
			10.3.3.5	
Activation time	MD		Activation	Default value is "now"
			time 10.3.3.1	
New U-RNTI	OP		U-RNTI	
			10.3.3.47	
New C-RNTI	OP		C-RNTI	
			10.3.3.8	
New DSCH-RNTI	<u>OP</u>		DSCH-RNTI	
DDC Ctata Indicator	MD		10.3.3.8a	
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	
CN Information Elements				
CN Information info	OP		CN	
			Information	
			info 10.3.1.3	
UTRAN mobility information				
elements	OD		LIDA identiti	
URA identity	OP		URA identity 10.3.2.6	
RB information elements	+		10.3.2.0	
Downlink counter	OP			
synchronisation info]			
>RB with PDCP information list	OP	1 to		This IE is needed for each RB
		<maxrball< td=""><td></td><td>having PDCP in the case of</td></maxrball<>		having PDCP in the case of
		RABs>		lossless SRNS relocation
>>RB with PDCP information	MP		RB with	
			PDCP	
			information	
T-OUL-Council - Et	-		10.3.4.22	
TrCH Information Elements	1			
Uplink transport channels	OD		III Tromanant	
UL Transport channel	OP		UL Transport	

Information Element/Group name	Need	Multi	Type and reference	Semantics description
information common for all transport channels			channel information common for all transport channels 10.3.5.24	
Added or Reconfigured TrCH information list	OP	1 to <maxtrch ></maxtrch 		
>Added or Reconfigured UL TrCH information	MP		Added or Reconfigure d UL TrCH information 10.3.5.2	
CHOICE mode	OP			
>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)
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	
Added or Reconfigured TrCH information list	OP	1 to <maxtrch< td=""><td>10.0.0.0</td><td></td></maxtrch<>	10.0.0.0	
>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			
CHOICE mode	MP			
>>DD >>Downlink PDSCH information	OP		Downlink PDSCH information	
>TDD			10.3.6.30	(no data)
- 100	i .	1	1	(110 data)

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

10.3.3.8 C-RNTI

The cell RNTI (C-RNTI) identifies an UE having a RRC connection within a cell.

Information Element/Group name	Need	Multi	Type and reference	Semantics description
C-RNTI	MP		bit string(16)	

10.3.3.8a DSCH-RNTI

In FDD, 7the DSCH-RNTI identifies an UE in CELL_DCH using a DSCH within a cell. In TDD, the DSCH-RNTI identifies a UE in CELL_DCH or CELL_FACH using a DSCH or USCH within the cell.

Information Element/Group name	Need	<u>Multi</u>	Type and reference	Semantics description
DSCH-RNTI	MP		bit string(16)	

11.2 PDU definitions

```
__******************
-- TABULAR: The message type and integrity check info are not
\mbox{--}\mbox{ visible} in this module as they are defined in the class module.
-- Also, all FDD/TDD specific choices have the FDD option first
-- and TDD second, just for consistency.
PDU-definitions DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
__*********************
-- IE parameter types from other modules
TMPORTS
-- Core Network IEs :
   CN-DomainIdentity,
   CN-InformationInfo,
   CN-InformationInfoFull,
   NAS-Message,
   PagingRecordTypeID,
-- UTRAN Mobility IEs :
   URA-Identity,
-- User Equipment IEs :
   ActivationTime,
   C-RNTI,
   CapabilityUpdateRequirement,
   CellUpdateCause,
   CipheringAlgorithm,
   CipheringModeInfo,
   DSCH-RNTI,
<. . .>
__ ***************
-- CELL UPDATE CONFIRM
__ ***************
CellUpdateConfirm ::= CHOICE {
                              SEQUENCE {
      v3100nonCriticalExtensions

cellUpdateConfirm-r3-IEs,

SEOUENCE |
   r3
          cellUpdateConfirm-v3100ext CellUpdateConfirm-v3100ext,
          nonCriticalExtensions
                                      SEQUENCE {}
                                                                  OPTIONAL
         OPTIONAL
   later-than-r3
                               SEQUENCE {
                              RRC-TransactionIdentifier,
      rrc-TransactionIdentifier
      criticalExtensions
                                  SEQUENCE {}
}
CellUpdateConfirm-v3100ext ::= SEQUENCE {
   new-DSCH-RNTI
<. . . >
__ ***************
```

```
-- PHYSICAL CHANNEL RECONFIGURATION
__ ******************
PhysicalChannelReconfiguration ::= CHOICE {
       physicalChannelReconfiguration-r3
                                     PhysicalChannelReconfiguration-r3-IEs,
       v3100nonCriticalExtensions
                                        SEQUENCE {
           physicalChannelReconfiguration-v3100ext
                                 PhysicalChannelReconfiguration-v3100ext,
           nonCriticalExtensions
                                         SEQUENCE {}
                                                                        OPTIONAL
           OPTIONAL
   later-than-r3
                                 SEQUENCE {
       rrc-TransactionIdentifier RRC-TransactionIdentifier,
       criticalExtensions
                                    SEQUENCE {}
}
<. . >
PhysicalChannelReconfiguration-v3100ext ::= SEQUENCE {
   new-DSCH-RNTI
                                                                        OPTIONAL
__ *****************
-- PHYSICAL SHARED CHANNEL ALLOCATION (TDD only)
__ ******************************
PhysicalSharedChannelAllocation ::= CHOICE {
                                  SEQUENCE {
       physicalSharedChannelAllocation-r3
                                     PhysicalSharedChannelAllocation-r3-IEs,
                                     SEQUENCE {} OPTIONAL
       nonCriticalExtensions
   later-than-r3
                                 SEQUENCE {
       rrc-TransactionIdentifier RRC-TransactionIdentifier,
                                     SEQUENCE {}
       criticalExtensions
}
PhysicalSharedChannelAllocation-r3-IEs ::= SEQUENCE {
    -- TABULAR: Integrity protection shall not be performed on this message.
   -- User equipment IEs
       edsch-RNTI
                                      ----CDSCH-RNTI
                                                                           ---OPTIONAL,
       rrc-TransactionIdentifier
                                   RRC-TransactionIdentifier,
    -- Physical channel IEs
       ul-TimingAdvance UL-TimingAdvanceControl OPTIONAL, pusch-CapacityAllocationInfo pdsch-CapacityAllocationInfo PDSCH-CapacityAllocationInfo OPTIONAL, postivaPagacityAllocationInfo OPTIONAL,
                                   ENUMERATED {
       confirmRequest
                                         confirmPDSCH, confirmPUSCH }
                                                                       OPTIONAL,
       -- TABULAR: If the above value is not present, the default value "No Confirm"
       -- shall be used as specified in 10.2.25.
                                                                        OPTIONAL,
       trafficVolumeReportRequest INTEGER (0..255)
       iscpTimeslotList
                                     TimeslotList
                                                                        OPTIONAL,
       requestPCCPCHRSCP
                                      BOOLEAN
}
__ ***************
-- PUSCH CAPACITY REQUEST (TDD only)
__ ****************
PUSCHCapacityRequest ::= SEQUENCE {
   -- User equipment IEs
                                      ----CDSCH-RNTI
       edsch-RNTI
                                                                               -OPTIONAL,
   -- Measurement IEs
       trafficVolume
                                     TrafficVolumeMeasuredResultsList
                                                                      OPTIONAL,
       timeslotListWithISCP
primaryCCPCH-RSCP
                                    TimeslotListWithISCP
                                                                        OPTIONAL,
                                     PrimaryCCPCH-RSCP
                                                                        OPTIONAL,
       allocationConfirmation
                                     CHOICE {
```

```
pdschConfirmation
                                    PDSCH-Identity,
                                      PUSCH-Identity
          puschConfirmation
                                                                  OPTIONAL,
                                 ProtocolErrorIndicatorWithMoreInfo,
      protocolErrorIndicator
   -- Extension mechanism for non- release99 information
                               SEQUENCE {} OPTIONAL
      nonCriticalExtensions
}
__ ****************
-- RADIO BEARER RECONFIGURATION
__ ***************
RadioBearerReconfiguration ::= CHOICE {
                           SEQUENCE {
      radioBearerReconfiguration-r3 RadioBearerReconfiguration-r3-IEs,
      v3100nonCriticalExtensions
                                   SEQUENCE {
          radioBearerReconfiguration-v3100ext
                                            RadioBearerReconfiguration-v3100ext,
          nonCriticalExtensions
                                             SEQUENCE {}
         OPTIONAL
   later-than-r3
                               SEQUENCE {
                              RRC-TransactionIdentifier,
      rrc-TransactionIdentifier
      criticalExtensions
                                  SEQUENCE {}
}
{\tt RadioBearerReconfiguration-v3100ext ::= SEQUENCE \ \{}
   new-DSCH-RNTI
-- RADIO BEARER RELEASE
__ ***************
RadioBearerRelease ::= CHOICE {
                              SEQUENCE {
   r3
                               RadioBearerRelease-r3-IEs,
      radioBearerRelease-r3
                                   SEQUENCE {
      v3100nonCriticalExtensions
                                      RadioBearerRelease-v3100ext,
          radioBearerRelease-v3100ext
          nonCriticalExtensions
                                     SEQUENCE {}
                                                                  OPTIONAL
         OPTIONAL
   later-than-r3
                              SEQUENCE {
      rrc-TransactionIdentifier
                              RRC-TransactionIdentifier, SEQUENCE {}
      criticalExtensions
   }
}
RadioBearerRelease-v3100ext ::= SEQUENCE {
   new-DSCH-RNTI
                                   DSCH-RNTI
__ ****************************
-- RADIO BEARER SETUP
__ ***************
RadioBearerSetup ::= CHOICE {
      SEQUENCE {
radioBearerSetup-r3
PadioP
                               RadioBearerSetup-r3-IEs,
                                      SEQUENCE {
      v3100nonCriticalExtensions
```

```
radioBearerSetup-v3100ext
                                         RadioBearerSetup-v3100ext,
           nonCriticalExtensions
                                         SEQUENCE {}
                                                                        OPTIONAL
           OPTIONAL
   later-than-r3
                                  SEQUENCE {
                                  RRC-TransactionIdentifier,
       rrc-TransactionIdentifier
                                     SEQUENCE {}
       criticalExtensions
}
RadioBearerSetup-v3100ext ::= SEQUENCE {
                                     DSCH-RNTI
                                                                       OPTIONAL
   new-DSCH-RNTI
<. . .>
__ **************
-- TRANSPORT CHANNEL RECONFIGURATION
__ ****************
{\tt TransportChannelReconfiguration} \ ::= \ {\tt CHOICE} \ \{
                                  SEQUENCE {
       transportChannelReconfiguration-r3
                                     TransportChannelReconfiguration-r3-IEs,
                                         SEQUENCE {
       v3100nonCriticalExtensions
           transportChannelReconfiguration-v3100ext
                                     TransportChannelReconfiguration-v310ext,
                                         SEQUENCE {}
           nonCriticalExtensions
                                                                       OPTIONAL
              OPTIONAL
   later-than-r3
                                  SEQUENCE {
       rrc-TransactionIdentifier
                                  RRC-TransactionIdentifier,
       criticalExtensions
                                     SEQUENCE {}
}
TransportChannelReconfiguration-v310ext ::= SEQUENCE {
                                     DSCH-RNTI
   new-DSCH-RNTI
                                                                       OPTIONAL
<. . . >
```

11.3 Information element definitions

13.4.3 C_RNTI

This variable stores the assigned C-RNTI for this UE when in CELL_FACH state.

Information Element/Group name	Need	Multi	Type and reference	Semantics description
C-RNTI	OP		C-RNTI 10.3.3.8	Cleared when entering UTRA RRC connected mode when not otherwise stated in the procedure. Cleared when leaving UTRA RRC connected mode.

13.4.3a DSCH_RNTI

This variable stores the assigned DSCH-RNTI for this UE when in CELL_DCH state.

Information Element/Group name	<u>Need</u>	<u>Multi</u>	Type and reference	Semantics description
DSCH-RNTI	<u>OP</u>		DSCH-RNTI 10.3.3.8	Cleared when entering UTRA RRC connected mode when not otherwise stated in the procedure. Cleared when leaving UTRA RRC connected mode.

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Correction to a function where the specification was found erroneous and contained contradictions. Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

Clauses affected: # 10.3.6.38, 10.3.6.87a (new), 10.3.6.92, 11

Other specs # - Other core specifications # 25.331 v3.9.0, CR 1338r1

Test specifications - O&M Specifications

Other comments: #

10.3.6.38 Individual Timeslot interference

Parameters used by the UE for uplink open loop power control in TDD.

Information element	Need	Multi	Type and reference	Semantics description
Timeslot number	MP		Timeslot number 10.3.6.84	
UL Timeslot Interference	MP		TDD UL Interference 10.3.6.87a	

10.3.6.87a TDD UL interference

Information Element/Group	Need	<u>Multi</u>	Type and	Semantics description
<u>name</u>			<u>reference</u>	
TDD UL interference	<u>MP</u>		Integer (-	<u>In dBm</u>
			11052)	

NOTE: TDD only. This IE is a timeslot specific value.

10.3.6.92 Uplink DPCH power control info Post

Parameters used by UE to set DPCH initial output power and to use for closed-loop power control.

Information Element/Group	Need	Multi	Type and	Semantics	Version
name			reference	description	
CHOICE mode	MP				
>FDD					
>>DPCCH Power offset	MP		Integer(- 11050 by step of 4)	In dB	
>>PC Preamble	MP		Integer (07)	in number of frames	
>>PC Preamble	MP		Integer (07)	in number of frames	
>>SRB delay	MP		Integer (07)	In number of frames	
>>SRB delay	MP		Integer (07)	In number of frames	
>TDD					
>>UL target SIR	MP		Real (-11	In dB	

Information Element/Group	Need	Multi	Type and	Semantics	Version
name			reference	description	
			20 by step of		
			0.5dB)		
>>CHOICE TDD option	MP				REL-4
>>>3.84 Mcps TDD					REL-4
>>>>UL Timeslot Interference	MP		TDD UL		
			Interference		
			10.3.6.87 <u>a</u>		
>>>1.28 Mcps TDD				(no data)	REL-4

Condition	Explanation
algo	The IE is mandatory present if the IE "Power Control Algorithm" is set to "algorithm 1", otherwise the IE is
	not needed

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		CH	IANGE	ERE	ΕQ	UE	ST				CR-Form-v4
	25.331	CR 13	38	X	ev	r1	¥	Current ve	rsion:	3.9.0	¥
For <u>HELP</u> on usi	ng this for	m, see bo	ttom of thi	s page	e or	look	at the	e pop-up te	xt ove	r the ₩ syi	mbols.
Proposed change af	fects: ೫	(U)SIM	ME	/UE	X	Radi	io Ac	cess Netwo	ork X	Core Ne	etwork
Title: 第一	Correction	n to IE "UL	_ interferer	ce" fo	r U7	ΓRΑ	TDD				
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Summary of change:			e for IE "U 0dBm52			ence"	(10.	3.6.87) cha	nged f	rom –110c	dBm
Consequences if not approved:	deple	oyment so rol test ca	enarios. S se) will not	everal be fea	IWC	34 te		in some ex ses (especi			
	Isola	ted impac	t analysis:								

Impacted functionality: Range of signalled UL Interference

Correction to a function where the specification was found erroneous and contained contradictions. Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

Clauses affected: # 10.3.6.38, 10.3.6.87a (new), 10.3.6.92, 11

Other specs # - Other core specifications # 25.331 v4.3.0, CR 1339

Test specifications O&M Specifications

Other comments: # -

10.3.6.38 Individual Timeslot interference

Parameters used by the UE for uplink open loop power control in TDD.

Information element	Need	Multi	Type and reference	Semantics description
Timeslot number	MP		Timeslot number 10.3.6.84	
UL Timeslot Interference	MP		TDD UL Interference 10.3.6.87a	

10.3.6.87a TDD UL interference

Information Element/Group	Need	<u>Multi</u>	Type and	Semantics description
<u>name</u>			<u>reference</u>	
TDD UL interference	<u>MP</u>		Integer (-	<u>In dBm</u>
			11052)	

NOTE: TDD only. This IE is a timeslot specific value.

10.3.6.92 Uplink DPCH power control info Post

Parameters used by UE to set DPCH initial output power and to use for closed-loop power control.

Information Element/Group	Need	Multi	Type and	Semantics description
name			reference	
CHOICE mode	MP			
>FDD				
>>DPCCH Power offset	MP		Integer(- 11050 by step of 4)	In dB
>>PC Preamble	MP		Integer (07)	in number of frames
>>SRB delay	MP		Integer (07)	In number of frames
>TDD				
>>UL target SIR	MP		Real (-11 20 by step of 0.5dB)	In dB
>>UL Timeslot Interference	MP		TDD UL Interference 10.3.6.87a	

Condition	Explanation		
algo	The IE is mandatory present if the IE "Power Control Algorithm" is set to "algorithm 1", otherwise the IE is		
	not needed.		

CR-Form-v. CHANGE REQUEST							CR-Form-v5					
*		25.331	CR	1337	8	⊭ rev	-	¥	Current version	on: 4	.3.0	¥
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Proposed chang	je a	nffects: ♯	(U)	SIM	ME/U	JE X	Rad	io Ac	cess Network	(Core Ne	etwork
Title:	Retransmission of uplink direct transfer at RLC re-establishment and inter-RAT change						ΛT					
Source:	Ħ	TSG-RAN	WG2									
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Reason for change:
When RLC is re-established or upon inter-RAT handover from UTRAN, inter-RAT cell reselection from UTRAN or at inter-RAT cell change order from UTRAN, there may be unacknowledged uplink NAS direct transfer messages lost in RLC when

the buffer is cleared.

TS 24.007, 11.2.3.2.3, says:

"Upper layer messages sent using the RR sub-layer transport service from the mobile station to the network can be duplicated by the data link layer in at least the following cases:

- in A/Gb mode, when a channel change of dedicated channels is required (assignment or handover procedure) and the last layer 2 frame has not been acknowledged by the peer data link layer before the mobile station leaves the old channel.
- in lu mode, when an RLC re-establishment occurs (e.g. due to relocation) and the RLC layer has not acknowledged the last one or more RLC PDUs before RLC re-establishment
- an inter-system change from Iu mode to A/Gb mode is performed and the RLC layer has not acknowledged the last one or more RLC PDUs.
- an inter-system change from A/Gb mode to lu mode is performed and the the last layer 2 frame in A/Gb mode has not been acknowledged by the peer data link layer before the mobile station leaves the old channel.

In these cases, the mobile station does not know whether the network has received the messages correctly. Therefore, the mobile station has to send the messages again when the channel change is completed."

There is a duplicate avoidance protocol (N(SD)) as part of upper layers specified in TS 24.007, which makes it possible to skip those NAS messages that were retransmitted and the duplicates were not detected by lower layers.

In case of GSM, the retransmission is triggered by RR using suspend/resume of layer 2 (see TS 04.18 3.1.4) and is not part of NAS. A retransmission of NAS messages is therefore necessary by RRC at RLC reestablishment and intersystem change. Even if the requirement is given implicitly by 24.007, it is strongly recommended that also the specification for the layer actually performing this function (RRC) contain the requirements on how and when to perform the

	retransmission.					
Summary of change: ₩	In the Initial direct transfer procedure, the point when the procedure ends is moved until after the sucessful delivery of the message has been confirmed by RLC. The point when confirmation of signalling connection establishment is made to upper layers is kept (to not re-introduce problems of receiving a downlink NAS message before this confirmation is given.					
	The corresponding change is made for the Uplink direct transfer procedure.					
	For the inter-RAT change procedures, is is stated that any non-confirmed NAS messages shall be retransmitted using the target radio access technology.					
	Impact analysis:					
	Impacted functionality: Initial direct transfer and Uplink direct transfer procedures when RLC re-establishment or inter-RAT change occurs.					
	Correction: Clarified the specification according to a common understanding.					
	Correction to a function where the specification was not sufficiently explicit. Would not impact an implementation behaving as indicated in the CR, would impact an implementation otherwise.					
Consequences if # not approved:	There is a risk that the UE will not retransmit NAS messages causing uplink NAS message loss at occasions like SRNS relocation and inter-RAT change.					
Clauses affected: 第	8.1.8.2, 8.1.8.2a (new), 8.1.10.2, 8.1.10.2a (new), 8.3.7.4, 8.3.9.3					
Other specs # affected:	Other core specifications # 25.331 v3.9.0, CR 1336r2 Test specifications O&M Specifications					
Other comments: #						

How to create CRs using this form:

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

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

8.1.8.2 Initiation of Initial direct transfer procedure in the UE

In the UE, the initial direct transfer procedure shall be initiated, when the upper layers request establishment of a signalling connection. This request also includes a request for the transfer of a NAS message.

Upon initiation of the initial direct transfer procedure when the UE is in idle mode, the UE shall:

- set the variable ESTABLISHMENT_CAUSE to the cause for establishment indicated by upper layers;
- perform an RRC connection establishment procedure, according to subclause 8.1.3;
- if the RRC connection establishment procedure was not successful:
 - indicate failure to establish the signalling connection to upper layers and end the procedure.
- when the RRC connection establishment procedure is completed successfully:
 - continue with the initial direct transfer procedure as below.

Upon initiation of the initial direct transfer procedure when the UE is in CELL_PCH or URA_PCH state, the UE shall:

- perform a cell update procedure, according to subclause 8.3.1, using the cause "uplink data transmission";
- when the cell update procedure completed successfully:
 - continue with the initial direct transfer procedure as below.

The UE shall, in the INITIAL DIRECT TRANSFER message:

- set the IE "NAS message" as received from upper layers; and
- set the IE "CN domain identity" as indicated by the upper layers; and
- set the IE "Intra Domain NAS Node Selector" as follows:
 - derive the IE "Intra Domain NAS Node Selector" from TMSI/PMTSI, IMSI, or IMEI; and
 - provide the coding of the IE "Intra Domain NAS Node Selector" according to the following priorities:
 - 1. derive the routing parameter for IDNNS from TMSI (CS domain) or PTMSI (PS domain) whenever a valid TMSI/PTMSI is available;
 - 2. base the routing parameter for IDNNS on IMSI when no valid TMSI/PTMSI is available;
 - 3. base the routing parameter for IDNNS on IMEI only if no (U)SIM is inserted in the UE.

In CELL_FACH state, the UE shall:

- include a measurement report in the IE "Measured results on RACH", as specified in the IE "Intra-frequency reporting quantity for RACH reporting" and the IE "Maximum number of reported cells on RACH" in System Information Block type 12 (or "System Information Block Type 11" if "System Information Block Type 12" is not being broadcast);
- include in the IE "Measured results on RACH" all requested reporting quantities for cells for which measurements are reported.

The UE shall:

- transmit the INITIAL DIRECT TRANSFER message on the uplink DCCH using AM RLC on signalling radio bearer RB3:
- when the INITIAL DIRECT TRANSFER message has been submitted to lower layers for transmission:
 - confirm the establishment of a signalling connection to upper layers; and
 - add the signalling connection with the identity indicated by the IE "CN domain identity" in the variable ESTABLISHED_SIGNALLING_CONNECTIONS; and

- the procedure ends.
- when the successful delivery of the INITIAL DIRECT TRANSFER message has been confirmed by RLC:
 - the procedure ends.

When not stated otherwise elsewhere, the UE may also initiate the initial direct transfer procedure when another procedure is ongoing, and in that case the state of the latter procedure shall not be affected.

A new signalling connection request may be received from upper layers during transition to idle mode. In those cases, from the time of the indication of release to upper layers until the UE has entered idle mode, any such upper layer request to establish a new signalling connection shall be queued. This request shall be processed after the UE has entered idle mode.

8.1.8.2a RLC re-establishment or inter-RAT change

If a re-establishment of RLC on signalling radio bearer RB3 occurs before the successful delivery of the INITIAL DIRECT TRANSFER message has been confirmed by RLC, the UE shall:

 retransmit the INITIAL DIRECT TRANSFER message on the uplink DCCH using AM RLC on signalling radio bearer RB3.

If an Inter-RAT handover from UTRAN procedure occurs before the successful delivery of the INITIAL DIRECT TRANSFER message has been confirmed by RLC, for messages with the IE "CN domain identity" set to "CS domain", the UE shall

- retransmit the NAS message as specified in subclause 8.3.7.4.

8.1.8.3 Reception of INITIAL DIRECT TRANSFER message by the UTRAN

On reception of the INITIAL DIRECT TRANSFER message the NAS message should be routed using the IE "CN Domain Identity". UTRAN may also use the IE "Intra Domain NAS Node Selector" for routing among the CN nodes for the addressed CN domain.

If no signalling connection exists towards the chosen node, then a signalling connection is established.

If the IE "Measured results on RACH" is present in the message, the UTRAN should extract the contents to be used for radio resource control.

When the UTRAN receives an INITIAL DIRECT TRANSFER message, it shall not affect the state of any other ongoing RRC procedures, when not stated otherwise elsewhere.

8.1.10.2 Initiation of uplink direct transfer procedure in the UE

In the UE, the uplink direct transfer procedure shall be initiated when the upper layers request a transfer of a NAS message on an existing signalling connection. When not stated otherwise elsewhere, the UE may initiate the uplink direct transfer procedure when another procedure is ongoing, and in that case the state of the latter procedure shall not be affected.

Upon initiation of the uplink direct transfer procedure in CELL PCH or URA PCH state, the UE shall:

- perform a cell update procedure, according to subclause 8.3.1, using the cause "uplink data transmission";
- when the cell update procedure has been completed successfully:
 - continue with the uplink direct transfer procedure as below.

The UE shall transmit the UPLINK DIRECT TRANSFER message on the uplink DCCH using AM RLC on signalling radio bearer RB3 or signalling radio bearer RB4. The UE shall:

- if upper layers indicate "low priority" for this message:
 - select signalling radio bearer RB4, if available. Specifically, for a GSM-MAP based CN, signalling radio bearer RB4 shall, if available, be selected when "SAPI 3" is requested;
 - select signalling radio bearer RB3 when signalling radio bearer RB4 is not available;
- if upper layers indicate "high priority" for this message:
 - select signalling radio bearer RB3. Specifically, for a GSM-MAP based CN, signalling radio bearer RB3 shall be selected when "SAPI 0" is requested.

In CELL_FACH state, the UE shall:

- include a measurement report in the IE "Measured results on RACH", as specified in the IE "Intra-frequency reporting quantity for RACH reporting" and the IE "Maximum number of reported cells on RACH" in System Information Block type 12 (or "System Information Block Type 11" if "System Information Block Type 12" is not being broadcast);
- include in the IE "Measured results on RACH" all requested reporting quantities for cells for which measurements are reported.

The UE shall set the IE "NAS message" as received from upper layers and set the IE "CN domain identity" as indicated by the upper layers.

When the <u>sucessful delivery of the UPLINK DIRECT TRANSFER</u> message has been <u>submitted to lower layers for transmission confirmed by RLC</u> the procedure ends.

8.1.10.2a RLC re-establishment or inter-RAT change

If signalling radio bearer RB n (where n equals to 3 or 4) was used when transmitting the UPLINK DIRECT TRANSFER message and a re-establishment of RLC on the same signalling radio bearer RB n occurs before the successful delivery of the UPLINK DIRECT TRANSFER message have been confirmed by RLC, the UE shall:

- retransmit the UPLINK DIRECT TRANSFER message on the uplink DCCH using AM RLC on signalling radio bearer RB n.

If an Inter-RAT handover from UTRAN procedure occurs before the successful delivery of the UPLINK DIRECT TRANSFER message has been confirmed by RLC, for messages with the IE "CN domain identity" set to "CS domain" the UE shall

- retransmit the NAS message as specified in subclause 8.3.7.4.

8.1.10.3 Reception of UPLINK DIRECT TRANSFER message by the UTRAN

On reception of the UPLINK DIRECT TRANSFER message the NAS message should be routed using the value indicated in the IE "CN domain identity".

If the IE "Measured results on RACH" is present in the message, the UTRAN should extract the contents to be used for radio resource control.

When the UTRAN receives an UPLINK DIRECT TRANSFER message, it shall not affect the state of any other ongoing RRC procedures, when not stated otherwise elsewhere.

8.3.7.4 Successful completion of the inter-RAT handover

Upon successfully completing the handover, UTRAN should:

- release the radio connection; and
- remove all context information for the concerned UE.

Upon successfully completing the handover, the UE shall:

- if the USIM is present:
 - store the current START value for every CN domain in the USIM [50];
 - if the "START" stored in the USIM [50] for a CN domain is greater than or equal to the value "THRESHOLD" of the variable START_THRESHOLD:
 - delete the ciphering and integrity keys that are stored in the USIM for that CN domain;
 - inform the deletion of these keys to upper layers.
- if there are any NAS messages with the IE "CN domain identity" set to "CS domain" for which the sucessful delivery of the INITIAL DIRECT TRANSFER message or UPLINK DIRECT TRANSFER message on signalling radio bearer RB 3 or signalling radio bearer RB4 that have has not yet been confirmed by RLC:
 - retransmit those NAS messages to the network on the newly established radio connection to the target radio acces technology;
- clear or set variables upon leaving UTRA RRC connected mode as specified in subclause 13.4.

NOTE: The release of the UMTS radio resources is initiated from the target RAT.

8.3.9.3 Successful cell reselection

When the UE has succeeded in reselecting a cell in the target radio access technology and has initiated the establishment of a connection, it shall:

-__stop timer T309 and release all UTRAN specific resources.

UTRAN should release all UE dedicated resources upon indication that the UE has completed a connection establishment to the other radio access technology.

8.3.11.4 Successful completion of the cell change order

Upon successful completion of the cell change order, the UE shall:

- stop timer T309;
- clear or set variables upon leaving UTRA RRC connected mode as specified in subclause 13.4.

Upon indication of the UE having successfully completed the cell change order, UTRAN should:

- release the radio connection; and
- remove all context information for the concerned UE.

NOTE: The release of the UMTS radio resources is initiated from another RAT.

3GPP TSG-RAN WG2 meeting #27 Orlando, FL, USA, Feb 18-22, 2002

CHANGE REQUEST							CR-Form-v5					
*		25.331	CR	1336		жre	v	r2 [#]	Current ver	sion:	3.9.0	*
For <u>HELP</u> or	า น	sing this for	m, see	e bottom (of this	page	or Ic	ook at th	ne pop-up tex	t over	r the ₩ syr	nbols.
Proposed chang	je a	affects: ♯	(U)	SIM	ME	/UE X	F	Radio A	ccess Netwo	rk	Core Ne	etwork
Title:	¥	Retransm change	ission	of uplink	direct	t transf	fer a	t RLC r	e-establishm	ent ar	nd inter-RA	ΛT
Source:	¥	TSG-RAN	I WG2									
Work item code:	ж	TEI							Date: ৳	€ 20	02-02-22	
Category:	*	B (add C (fun	rection) respone lition of ctional torial m blanatic	ds to a cor f feature), modification ons of the a	rection on of fe) above	n in an eature)			2	of the fo (GSI (Rela (Rela (Rela (Rela (Rela	ollowing rele M Phase 2) ease 1996) ease 1997) ease 1998) ease 1999) ease 4) ease 5)	eases:

Reason for change:
When RLC is re-established or upon inter-RAT handover from UTRAN, inter-RAT cell reselection from UTRAN or at inter-RAT cell change order from UTRAN, there may be unacknowledged uplink NAS direct transfer messages lost in RLC when the buffer is cleared.

TS 24.007, 11.2.3.2.3, says:

"Upper layer messages sent using the RR sub-layer transport service from the mobile station to the network can be duplicated by the data link layer in at least the following cases:

- in A/Gb mode, when a channel change of dedicated channels is required (assignment or handover procedure) and the last layer 2 frame has not been acknowledged by the peer data link layer before the mobile station leaves the old channel.
- in lu mode, when an RLC re-establishment occurs (e.g. due to relocation) and the RLC layer has not acknowledged the last one or more RLC PDUs before RLC re-establishment
- an inter-system change from Iu mode to A/Gb mode is performed and the RLC layer has not acknowledged the last one or more RLC PDUs.
- an inter-system change from A/Gb mode to lu mode is performed and the the last layer 2 frame in A/Gb mode has not been acknowledged by the peer data link layer before the mobile station leaves the old channel.

In these cases, the mobile station does not know whether the network has received the messages correctly. Therefore, the mobile station has to send the messages again when the channel change is completed."

There is a duplicate avoidance protocol (N(SD)) as part of upper layers specified in TS 24.007, which makes it possible to skip those NAS messages that were retransmitted and the duplicates were not detected by lower layers.

In case of GSM, the retransmission is triggered by RR using suspend/resume of layer 2 (see TS 04.18 3.1.4) and is not part of NAS. A retransmission of NAS messages is therefore necessary by RRC at RLC reestablishment and intersystem change. Even if the requirement is given implicitly by 24.007, it is strongly recommended that also the specification for the layer actually performing this function (RRC) contain the requirements on how and when to perform the

	retransmission.
Summary of change: 業	In the Initial direct transfer procedure, the point when the procedure ends is moved until after the sucessful delivery of the message has been confirmed by RLC. The point when confirmation of signalling connection establishment is made to upper layers is kept (to not re-introduce problems of receiving a downlink NAS message before this confirmation is given.
	The corresponding change is made for the Uplink direct transfer procedure.
	For the inter-RAT change procedures, is is stated that any non-confirmed NAS messages shall be retransmitted using the target radio access technology.
	Impact analysis:
	Impacted functionality: Initial direct transfer and Uplink direct transfer procedures when RLC re-establishment or inter-RAT change occurs.
	Correction: Clarified the specification according to a common understanding.
	Correction to a function where the specification was not sufficiently explicit. Would not impact an implementation behaving as indicated in the CR, would impact an implementation otherwise.
Consequences if # not approved:	There is a risk that the UE will not retransmit NAS messages causing uplink NAS message loss at occasions like SRNS relocation and inter-RAT change.
Clauses affected: 第	8.1.8.2, 8.1.8.2a (new), 8.1.10.2, 8.1.10.2a (new), 8.3.7.4, 8.3.9.3
Other specs # affected:	Other core specifications # 25.331 v4.3.0, CR 1337 Test specifications O&M Specifications
Other comments: #	Changes compared to previous revisions are highlighted in blue

How to create CRs using this form:

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

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

8.1.8.2 Initiation of Initial direct transfer procedure in the UE

In the UE, the initial direct transfer procedure shall be initiated, when the upper layers request establishment of a signalling connection. This request also includes a request for the transfer of a NAS message.

Upon initiation of the initial direct transfer procedure when the UE is in idle mode, the UE shall:

- set the variable ESTABLISHMENT_CAUSE to the cause for establishment indicated by upper layers;
- perform an RRC connection establishment procedure, according to subclause 8.1.3;
- if the RRC connection establishment procedure was not successful:
 - indicate failure to establish the signalling connection to upper layers and end the procedure.
- when the RRC connection establishment procedure is completed successfully:
 - continue with the initial direct transfer procedure as below.

Upon initiation of the initial direct transfer procedure when the UE is in CELL_PCH or URA_PCH state, the UE shall:

- perform a cell update procedure, according to subclause 8.3.1, using the cause "uplink data transmission";
- when the cell update procedure completed successfully:
 - continue with the initial direct transfer procedure as below.

The UE shall, in the INITIAL DIRECT TRANSFER message:

- set the IE "NAS message" as received from upper layers; and
- set the IE "CN domain identity" as indicated by the upper layers; and
- set the IE "Intra Domain NAS Node Selector" as follows:
 - derive the IE "Intra Domain NAS Node Selector" from TMSI/PMTSI, IMSI, or IMEI; and
 - provide the coding of the IE "Intra Domain NAS Node Selector" according to the following priorities:
 - 1. derive the routing parameter for IDNNS from TMSI (CS domain) or PTMSI (PS domain) whenever a valid TMSI/PTMSI is available;
 - 2. base the routing parameter for IDNNS on IMSI when no valid TMSI/PTMSI is available;
 - 3. base the routing parameter for IDNNS on IMEI only if no (U)SIM is inserted in the UE.

In CELL_FACH state, the UE shall:

- include a measurement report in the IE "Measured results on RACH", as specified in the IE "Intra-frequency reporting quantity for RACH reporting" and the IE "Maximum number of reported cells on RACH" in System Information Block type 12 (or "System Information Block Type 11" if "System Information Block Type 12" is not being broadcast);
- include in the IE "Measured results on RACH" all requested reporting quantities for cells for which measurements are reported.

The UE shall:

- transmit the INITIAL DIRECT TRANSFER message on the uplink DCCH using AM RLC on signalling radio bearer RB3:
- when the INITIAL DIRECT TRANSFER message has been submitted to lower layers for transmission:
 - confirm the establishment of a signalling connection to upper layers; and
 - add the signalling connection with the identity indicated by the IE "CN domain identity" in the variable ESTABLISHED_SIGNALLING_CONNECTIONS; and

- the procedure ends.
- when the successful delivery of the INITIAL DIRECT TRANSFER message has been confirmed by RLC:
 - the procedure ends.

When not stated otherwise elsewhere, the UE may also initiate the initial direct transfer procedure when another procedure is ongoing, and in that case the state of the latter procedure shall not be affected.

A new signalling connection request may be received from upper layers during transition to idle mode. In those cases, from the time of the indication of release to upper layers until the UE has entered idle mode, any such upper layer request to establish a new signalling connection shall be queued. This request shall be processed after the UE has entered idle mode.

8.1.8.2a RLC re-establishment or inter-RAT change

If a re-establishment of RLC on signalling radio bearer RB3 occurs before the successful delivery of the INITIAL DIRECT TRANSFER message has been confirmed by RLC, the UE shall:

- retransmit the INITIAL DIRECT TRANSFER message on the uplink DCCH using AM RLC on signalling radio bearer RB3, without incrementing "Uplink RRC message sequence number" for signalling radio bearer RB3 in the variable INTEGRITY PROTECTION INFO.

If an Inter-RAT handover from UTRAN procedure, or a Cell change order from UTRAN procedure occurs before the successful delivery of the INITIAL DIRECT TRANSFER message has been confirmed by RLC, for messages with the IE "CN domain identity" set to "CS domain", the UE shall

- retransmit the NAS message as specified in subclause 8.3.7.4, 8.3.9.3 or 8.3.11.4, respectively.

8.1.8.3 Reception of INITIAL DIRECT TRANSFER message by the UTRAN

On reception of the INITIAL DIRECT TRANSFER message the NAS message should be routed using the IE "CN Domain Identity". UTRAN may also use the IE "Intra Domain NAS Node Selector" for routing among the CN nodes for the addressed CN domain.

If no signalling connection exists towards the chosen node, then a signalling connection is established.

If the IE "Measured results on RACH" is present in the message, the UTRAN should extract the contents to be used for radio resource control.

When the UTRAN receives an INITIAL DIRECT TRANSFER message, it shall not affect the state of any other ongoing RRC procedures, when not stated otherwise elsewhere.

8.1.10.2 Initiation of uplink direct transfer procedure in the UE

In the UE, the uplink direct transfer procedure shall be initiated when the upper layers request a transfer of a NAS message on an existing signalling connection. When not stated otherwise elsewhere, the UE may initiate the uplink direct transfer procedure when another procedure is ongoing, and in that case the state of the latter procedure shall not be affected.

Upon initiation of the uplink direct transfer procedure in CELL PCH or URA PCH state, the UE shall:

- perform a cell update procedure, according to subclause 8.3.1, using the cause "uplink data transmission";
- when the cell update procedure has been completed successfully:
 - continue with the uplink direct transfer procedure as below.

The UE shall transmit the UPLINK DIRECT TRANSFER message on the uplink DCCH using AM RLC on signalling radio bearer RB3 or signalling radio bearer RB4. The UE shall:

- if upper layers indicate "low priority" for this message:
 - select signalling radio bearer RB4, if available. Specifically, for a GSM-MAP based CN, signalling radio bearer RB4 shall, if available, be selected when "SAPI 3" is requested;
 - select signalling radio bearer RB3 when signalling radio bearer RB4 is not available;
- if upper layers indicate "high priority" for this message:
 - select signalling radio bearer RB3. Specifically, for a GSM-MAP based CN, signalling radio bearer RB3 shall be selected when "SAPI 0" is requested.

In CELL FACH state, the UE shall:

- include a measurement report in the IE "Measured results on RACH", as specified in the IE "Intra-frequency reporting quantity for RACH reporting" and the IE "Maximum number of reported cells on RACH" in System Information Block type 12 (or "System Information Block Type 11" if "System Information Block Type 12" is not being broadcast);
- include in the IE "Measured results on RACH" all requested reporting quantities for cells for which measurements are reported.

The UE shall set the IE "NAS message" as received from upper layers and set the IE "CN domain identity" as indicated by the upper layers.

When the <u>sucessful delivery of the</u> UPLINK DIRECT TRANSFER message has been <u>submitted to lower layers for transmission</u> <u>confirmed by RLC</u> the procedure ends.

8.1.10.2a RLC re-establishment or inter-RAT change

If signalling radio bearer RB n (where n equals to 3 or 4) was used when transmitting the UPLINK DIRECT TRANSFER message and a re-establishment of RLC on the same signalling radio bearer RB n occurs before the successful delivery of the UPLINK DIRECT TRANSFER message have been confirmed by RLC, the UE shall:

- retransmit the UPLINK DIRECT TRANSFER message on the uplink DCCH using AM RLC on signalling radio bearer RB n, without incrementing "Uplink RRC message sequence number" for signalling radio bearer RB n in the variable INTEGRITY_PROTECTION_INFO.

If an Inter-RAT handover from UTRAN procedure, or a Cell ehange order from UTRAN procedure occurs before the successful delivery of the UPLINK DIRECT TRANSFER message has been confirmed by RLC, for messages with the IE "CN domain identity" set to "CS domain", the UE shall

- retransmit the NAS message as specified in subclause 8.3.7.4, 8.3.9.3 or 8.3.11.4, respectively.

8.1.10.3 Reception of UPLINK DIRECT TRANSFER message by the UTRAN

On reception of the UPLINK DIRECT TRANSFER message the NAS message should be routed using the value indicated in the IE "CN domain identity".

If the IE "Measured results on RACH" is present in the message, the UTRAN should extract the contents to be used for radio resource control.

When the UTRAN receives an UPLINK DIRECT TRANSFER message, it shall not affect the state of any other ongoing RRC procedures, when not stated otherwise elsewhere.

8.3.7.4 Successful completion of the inter-RAT handover

Upon successfully completing the handover, UTRAN should:

- release the radio connection; and
- remove all context information for the concerned UE.

Upon successfully completing the handover, the UE shall:

- if the USIM is present:
 - store the current START value for every CN domain in the USIM [50];
 - if the "START" stored in the USIM [50] for a CN domain is greater than or equal to the value "THRESHOLD" of the variable START_THRESHOLD:
 - delete the ciphering and integrity keys that are stored in the USIM for that CN domain;
 - inform the deletion of these keys to upper layers.
- if there are any NAS messages with the IE "CN domain identity" set to "CS domain" for which the successful delivery of the INITIAL DIRECT TRANSFER message or UPLINK DIRECT TRANSFER message on signalling radio bearer RB 3 or signalling radio bearer RB4 that have has not yet been confirmed by RLC:
 - retransmit those NAS messages to the network on the newly established radio connection to the target radio acces technology;
- clear or set variables upon leaving UTRA RRC connected mode as specified in subclause 13.4.

NOTE: The release of the UMTS radio resources is initiated from the target RAT.

8.3.9.3 Successful cell reselection

When the UE has succeeded in reselecting a cell in the target radio access technology and has initiated the establishment of a connection, it shall:

- stop timer T309 and release all UTRAN specific resources.
- if there are any NAS messages for which the successful delivery of the INITIAL DIRECT TRANSFER message or UPLINK DIRECT TRANSFER message on signalling radio bearer RB 3 have not yet been confirmed by RLC:
 - retransmit those NAS messages to the network on the newly established radio connection to the target radio acces technology.

UTRAN should release all UE dedicated resources upon indication that the UE has completed a connection establishment to the other radio access technology.

8.3.11.4 Successful completion of the cell change order

Upon successful completion of the cell change order, the UE shall:

- stop timer T309;

if there are any NAS messages for which the successful delivery of the INITIAL DIRECT TRANSFER message or UPLINK DIRECT TRANSFER message on signalling radio bearer RB 3 have not yet been confirmed by RLC:

retransmit those NAS messages to the network on the newly established radio connection to the target radio acces technology;

- clear or set variables upon leaving UTRA RRC connected mode as specified in subclause 13.4.

Upon indication of the UE having successfully completed the cell change order, UTRAN should:

- release the radio connection; and
- remove all context information for the concerned UE.

NOTE: The release of the UMTS radio resources is initiated from another RAT.

3GPP TSG-RAN WG2 Meeting #27 18th-22nd of February 2002, Orlando, FL, USA

Tdoc R2-020566

CHANGE REQUEST CHANGE REQUEST						
ж	25.331 CR 1333 ** ev - ** Current version: 4.3.0 **					
For HELP on us	ing this form, see bottom of this page or look at the pop-up text over the ♯ symbols.					
Proposed change a	ffects: 第 (U)SIM ME/UE X Radio Access Network X Core Network					
Title: #	OTDOA assistance data					
Source: #	TSG-RAN WG2					
Work item code: ₩	TEI Date: 第 18 th of February 2002					
	Release: REL-4 Use one of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) P (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900. REL-4 Use one of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 REL-4 (Release 4) REL-5 (Release 5)					
Reason for change	The 'SFN offset', defined now as a mandatory OTDOA assistance data field in IE 10.3.7.106 when the system utilizes IPDL, is not needed by UE for measuring SFN-SFN OTD as the channels used for synchronisation and measurements (SCH and CPICH, respectively) have no variations from frame to frame and hence all frames can be measured. On the other hand, it is difficult for the network side to provide this frame offset even if IPDLs are used unless a Location Measurement Unit (LMU) is placed at every base station site. Isolated impact: Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.					
Summary of change	'SFN offset' in IE 10.3.7.106 is aligned with ASN.1. If IPDL is not used, UE shall ignore IE 'SFN offset'.					
Consequences if not approved:	x					
Clauses affected:	8.6.7.19.2, 8.6.7.19.2a, 10.3.7.106					
Other specs Affected:	Contractions Other core specifications Test specifications O&M Specifications # 25.331 v3.9.0, CR 1332					
Other comments:	$m{lpha}$					

How to create CRs using this form:

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

8.6.7.19.2 UE positioning OTDOA assistance data for UE-assisted

If IE "UE positioning OTDOA reference cell info for UE-assisted" is received in System Information Block type 15.4 or in the MEASUREMENT CONTROL message, the UE shall update the variable UE_POSITIONING_OTDOA_DATA_UE_ASSISTED accordingly. The UE shall:

- store received cell information in the UE positioning reference cell info in the variable UE_POSITIONING_OTDOA_DATA_UE_ASSISTED, overwriting any existing information.

If IE "UE positioning OTDOA neighbour cell list for UE-assisted" is received in System Information Block type 15.4 or in the MEASUREMENT CONTROL message, the UE shall update the variable UE POSITIONING OTDOA DATA UE ASSISTED accordingly. The UE shall:

- store received cell information in the neighbour cell info list in the variable UE_POSITIONING_OTDOA_DATA_UE_ASSISTED, overwriting any existing information.

If, according to its capabilities, UE does not support IPDLs and if IE "IPDL parameters" is received for the reference or any of the neighbour cells, the UE shall:

- ignore this IE.

If IE "IPDL parameters" is not included, the UE shall:

ignore the IE "SFN offset".

If IE "UE positioning measurement" is received in the MEASUREMENT CONTROL message, the UE shall also perform the following consistency checks:

- if IE "Positioning Methods" is set to "OTDOA" or "Cell ID":
 - if IE "UE positioning OTDOA reference cell info for UE-assisted" is not included and if UE positioning OTDOA reference cell info for UE-assisted in variable UE_POSITIONING_OTDOA_DATA_UE_ASSISTED is empty:
 - set the variable CONFIGURATION_INCOMPLETE to TRUE.
- if IE "Positioning Methods" is set to "OTDOA":
 - if IE "UE positioning OTDOA neighbour cell list for UE-assisted" is not included and if less than two
 neighbour cells are stored in UE positioning OTDOA neighbour cell info list for UE-assisted in variable
 UE_POSITIONING_OTDOA_DATA_UE_ASSISTED:
 - set the variable CONFIGURATION_INCOMPLETE to TRUE.

8.6.7.19.2a UE positioning OTDOA assistance data for UE-based

The UE shall:

- if IE "UE positioning OTDOA reference cell info for UE-based" is received in System Information Block type 15.5 or in the MEASUREMENT CONTROL message or in the ASSISTANCE DATA DELIVERY:
 - update the variable UE_POSITIONING_OTDOA_DATA_UE_BASED accordingly;
 - store received cell information in the UE positioning reference cell info for UE-based in the variable UE_POSITIONING_OTDOA_DATA_UE_BASED, overwriting any existing information.
- if IE "UE positioning OTDOA neighbour cell list for UE-based" is received in System Information Block type 15.5 or in the MEASUREMENT CONTROL message or in the ASSISTANCE DATA DELIVERY:
 - $\quad update \ the \ variable \ UE_POSITIONING_OTDOA_DATA_UE_BASED \ accordingly;$
 - store received cell information in the neighbour cell info list for UE-based in the variable UE_POSITIONING_OTDOA_DATA_UE_BASED, overwriting any existing information.
- if, according to its capabilities, UE does not support IPDLs and if IE "IPDL parameters" is received for the reference or any of the neighbour cells::

- ignore this IE.
- if IE "IPDL parameters" is not included, the UE shall:
 - ignore the IE "SFN offset".
- if IE "UE positioning measurement" is received in the MEASUREMENT CONTROL message:
 - also perform the following consistency checks:
 - if IE "Positioning Methods" is set to "OTDOA":
 - if IE "UE positioning OTDOA reference cell info for UE-based" is not included and if UE positioning OTDOA reference cell info for UE-based in variable UE_POSITIONING_OTDOA_DATA_UE_BASED is empty:
 - set the variable CONFIGURATION_INCOMPLETE to TRUE.
 - if IE "Positioning Methods" is set to "OTDOA":
 - if IE "UE positioning OTDOA neighbour cell list for UE-based" is not included and if less than two
 neighbour cells are stored in UE positioning OTDOA neighbour cell info list for UE-based in variable
 UE_POSITIONING_OTDOA_DATA_UE_BASED:
 - set the variable CONFIGURATION_INCOMPLETE to TRUE.
 - if IE "Method Type" is set to "UE based":
 - if IE "UE positioning OTDOA reference cell info for UE-based" is included and if IE "Cell Position" for the reference cell is not included:
 - set the variable CONFIGURATION_INCOMPLETE to TRUE.
 - if the IE "UE positioning OTDOA neighbour cell list for UE-based" is included and if cell position
 of less than two neighbour cells of the cells included in this IE and stored in variable
 UE_POSITIONING_OTDOA_DATA_UE_BASED are different and if those cell positions are
 not different to the one of the reference cell stored in variable
 UE_POSITIONING_OTDOA_DATA_UE_BASED:
 - set the variable CONFIGURATION_INCOMPLETE to TRUE.
 - if the IE "UE positioning OTDOA neighbouring cell list for UE-based" is included and only two
 neighbour cells are included or stored in variable
 UE_POSITIONING_OTDOA_DATA_UE_BASED and if the IE "Round Trip Time" is neither
 included for the neighbour cells nor for the reference cell info:
 - set the variable CONFIGURATION_INCOMPLETE to TRUE.

10.3.7.106 UE positioning OTDOA neighbour cell info

This IE gives approximate cell timing in order to decrease the search window.

Information Element/Group name	Need	Multi	Type and Reference	Semantics description
CHOICE mode	MP		11010101101	
>FDD				
>>Primary CPICH info	MP		Primary CPICH info 10.3.6.60	
>TDD	1			
>>cell and channel ID	MP		Cell and Channel Identity info 10.3.6.8a	Identifies the channel to be measured on.
Frequency info	MD		Frequency info 10.3.6.36	Default value is the existing value of frequency information
IPDL parameters	CV-IPDLs		UE positioning IPDL parameters 10.3.7.98	
SFN offset	CV- IPDLsMP		Integer (0 4095)	Although this IE is not always required, need is MP to align with ASN.1. Define Tref as the time of beginning of system frame number SFNref of the reference cell. Define Tnc as the beginning of a frame from the neighbour cell occurring immediately after the time Tref. Let the corresponding system frame number be SFNnc. Then SFNnc = SFNref-SFN offset modulo 4096.
SFN-SFN relative time difference	MP		Integer(0 38399)	Gives the relative timing compared to the reference cell. Equal to \(\text{(Tnc-Tref)}^*\frac{4}(3.84*10^6) \) where \(\text{()} \) denotes rounding to the nearest lower integer. in chips, \(\text{Tnc} = the time of beginning of a system frame from the neighbour cell, Tref = the time of beginning of a system frame from the reference cell.
SFN-SFN drift	OP		Integer (0, - 1, -2, -3, -4, - 5, -8, -10, - 15, -25, -35, -50, -65, -80, -100, 1, 2, 3, 4, 5, 8, 10, 15, 25, 35, 50, 65, 80, 100)	in 1/256 chips per second
Search Window Size	MP		Integer(20, 40, 80, 160, 320, 640, 1280, infinity)	in chips. If the value is X then the expected SFN-SFN observed time difference is in the range [RTD-X, RTD+X] where RTD is the value of the field SFN-SFN relative time

Information Element/Group name	Need	Multi	Type and Reference	Semantics description
name			Reference	difference. Infinity means that the uncertainty is larger than 1280 chips.
CHOICE PositioningMode	MP			
>UE based				(no data)
>UE assisted				(no data)

Condition	Explanation		
IPDLs	This IE is mandatory present if IPDLs are applied and		
	not needed otherwise.		

3GPP TSG-RAN WG2 Meeting #27 18th-22nd of February 2002, Orlando, FL, USA

Tdoc R2-020565

	CHANGE REQUEST	CR-Form-v4
*	25.331 CR 1332 ** ev r2 **	Current version: 3.9.0 **
For <u>HELP</u> on us	ng this form, see bottom of this page or look at the	e pop-up text over the % symbols.
Proposed change a	f ects:	ccess Network X Core Network
Title:	OTDOA assistance data	
Source: #	TSG-RAN WG2	
Work item code: ₩	TEI	Date: **Bullet
	F Jse 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: # R99 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)
	** The 'SFN offset', defined now as a mandatory 10.3.7.106 when the system utilizes IPDL, is r SFN-SFN OTD as the channels used for sync (SCH and CPICH, respectively) have no varia all frames can be measured. On the other har to provide this frame offset even if IPDLs are to Measurement Unit (LMU) is placed at every be Isolated impact analysis: Would not affect implementations behaving I implementations supporting the corrected fur	not needed by UE for measuring chronisation and measurements ations from frame to frame and hence and, it is difficult for the network side used unless a Location ase station site. like indicated in the CR, would affect anctionality otherwise.
Summary or Change	If IPDL is not used, UE shall ignore IE 'SFN offse	
Consequences if not approved:	x	
ποι αρρισνεα.		
Clauses affected:	第 8.6.7.19.2, 8.6.7.19.2a, 10.3.7.106	
Other specs Affected:	# Other core specifications # 25.331 Test specifications O&M Specifications	v4.3.0, CR 1333
Other comments:	X	

How to create CRs using this form:

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

- 1) Fill out the above form. The symbols above marked \$\mathbb{X}\$ contain pop-up help information about the field that they are closest to.
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- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.6.7.19.2 UE positioning OTDOA assistance data for UE-assisted

If IE "UE positioning OTDOA reference cell info for UE-assisted" is received in System Information Block type 15.4 or in the MEASUREMENT CONTROL message, the UE shall update the variable UE_POSITIONING_OTDOA_DATA_UE_ASSISTED accordingly. The UE shall:

- store received cell information in the UE positioning reference cell info in the variable UE_POSITIONING_OTDOA_DATA_UE_ASSISTED, overwriting any existing information.

If IE "UE positioning OTDOA neighbour cell list for UE-assisted" is received in System Information Block type 15.4 or in the MEASUREMENT CONTROL message, the UE shall update the variable UE POSITIONING OTDOA DATA UE ASSISTED accordingly. The UE shall:

- store received cell information in the neighbour cell info list in the variable UE_POSITIONING_OTDOA_DATA_UE_ASSISTED, overwriting any existing information.

If, according to its capabilities, UE does not support IPDLs and if IE "IPDL parameters" is received for the reference or any of the neighbour cells, the UE shall:

- ignore this IE.

If IE "IPDL parameters" is not included, the UE shall:

ignore the IE "SFN offset".

If IE "UE positioning measurement" is received in the MEASUREMENT CONTROL message, the UE shall also perform the following consistency checks:

- if IE "Positioning Methods" is set to "OTDOA" or "Cell ID":
 - if IE "UE positioning OTDOA reference cell info for UE-assisted" is not included and if UE positioning OTDOA reference cell info for UE-assisted in variable UE_POSITIONING_OTDOA_DATA_UE_ASSISTED is empty:
 - set the variable CONFIGURATION_INCOMPLETE to TRUE.
- if IE "Positioning Methods" is set to "OTDOA":
 - if IE "UE positioning OTDOA neighbour cell list for UE-assisted" is not included and if less than two
 neighbour cells are stored in UE positioning OTDOA neighbour cell info list for UE-assisted in variable
 UE_POSITIONING_OTDOA_DATA_UE_ASSISTED:
 - set the variable CONFIGURATION_INCOMPLETE to TRUE.

8.6.7.19.2a UE positioning OTDOA assistance data for UE-based

The UE shall:

- if IE "UE positioning OTDOA reference cell info for UE-based" is received in System Information Block type 15.5 or in the MEASUREMENT CONTROL message or in the ASSISTANCE DATA DELIVERY:
 - update the variable UE_POSITIONING_OTDOA_DATA_UE_BASED accordingly;
 - store received cell information in the UE positioning reference cell info for UE-based in the variable UE_POSITIONING_OTDOA_DATA_UE_BASED, overwriting any existing information.
- if IE "UE positioning OTDOA neighbour cell list for UE-based" is received in System Information Block type 15.5 or in the MEASUREMENT CONTROL message or in the ASSISTANCE DATA DELIVERY:
 - $\quad update \ the \ variable \ UE_POSITIONING_OTDOA_DATA_UE_BASED \ accordingly;$
 - store received cell information in the neighbour cell info list for UE-based in the variable UE_POSITIONING_OTDOA_DATA_UE_BASED, overwriting any existing information.
- if, according to its capabilities, UE does not support IPDLs and if IE "IPDL parameters" is received for the reference or any of the neighbour cells:

- ignore this IE.
- if IE "IPDL parameters" is not included, the UE shall:
 - ignore the IE "SFN offset".
- if IE "UE positioning measurement" is received in the MEASUREMENT CONTROL message:
 - also perform the following consistency checks:
 - if IE "Positioning Methods" is set to "OTDOA":
 - if IE "UE positioning OTDOA reference cell info for UE-based" is not included and if UE positioning OTDOA reference cell info for UE-based in variable UE_POSITIONING_OTDOA_DATA_UE_BASED is empty:
 - set the variable CONFIGURATION_INCOMPLETE to TRUE.
 - if IE "Positioning Methods" is set to "OTDOA":
 - if IE "UE positioning OTDOA neighbour cell list for UE-based" is not included and if less than two
 neighbour cells are stored in UE positioning OTDOA neighbour cell info list for UE-based in variable
 UE_POSITIONING_OTDOA_DATA_UE_BASED:
 - set the variable CONFIGURATION_INCOMPLETE to TRUE.
 - if IE "Method Type" is set to "UE based":
 - if IE "UE positioning OTDOA reference cell info for UE-based" is included and if IE "Cell Position" for the reference cell is not included:
 - set the variable CONFIGURATION_INCOMPLETE to TRUE.
 - if the IE "UE positioning OTDOA neighbour cell list for UE-based" is included and if cell position
 of less than two neighbour cells of the cells included in this IE and stored in variable
 UE_POSITIONING_OTDOA_DATA_UE_BASED are different and if those cell positions are
 not different to the one of the reference cell stored in variable
 UE_POSITIONING_OTDOA_DATA_UE_BASED:
 - set the variable CONFIGURATION_INCOMPLETE to TRUE.
 - if the IE "UE positioning OTDOA neighbouring cell list for UE-based" is included and only two
 neighbour cells are included or stored in variable
 UE_POSITIONING_OTDOA_DATA_UE_BASED and if the IE "Round Trip Time" is neither
 included for the neighbour cells nor for the reference cell info:
 - set the variable CONFIGURATION_INCOMPLETE to TRUE.

10.3.7.106 UE positioning OTDOA neighbour cell info

This IE gives approximate cell timing in order to decrease the search window.

Information Element/Group	Need	Multi	Type and	Semantics description
name CHOICE mode	MP		Reference	
>FDD	IVIP			
>>Primary CPICH info	MP		Primary CPICH info 10.3.6.60	
>TDD			10.0.0.00	
>>cell and channel ID	MP		Cell and Channel Identity info 10.3.6.8a	Identifies the channel to be measured on.
Frequency info	MD		Frequency info 10.3.6.36	Default value is the existing value of frequency information
IPDL parameters	CV-IPDLs		UE positioning IPDL parameters 10.3.7.98	
SFN offset	CV- IPDLsOPM P		Integer (0 4095)	Although this IE is not always required, need is MP to align with ASN.1. Define Tref as the time of beginning of system frame number SFNref of the reference cell. Define Tnc as the beginning of a frame from the neighbour cell occurring immediately after the time Tref. Let the corresponding system frame number be SFNnc. Then SFNnc = SFNref-SFN offset modulo 4096.
SFN-SFN relative time difference	MP		Integer(0 38399)	Gives the relative timing compared to the reference cell. Equal to \(\text{(Tnc-Tref)}^*\frac{4}(3.84*10^6) \) where \(\text{()} \) denotes rounding to the nearest lower integer. in chips, \(\text{Tnc} = the time of beginning of a system frame from the neighbour cell, Tref = the time of beginning of a system frame from the reference cell.
SFN-SFN drift	OP		Integer (0, - 1, -2, -3, -4, - 5, -8, -10, - 15, -25, -35, -50, -65, -80, -100, 1, 2, 3, 4, 5, 8, 10, 15, 25, 35, 50, 65, 80, 100)	in 1/256 chips per second

Search Window Size	MP	Integer(20, 40, 80, 160, 320, 640, 1280, infinity)	In chips. If the value is X then the expected SFN-SFN observed time difference is in the range [RTD-X, RTD+X] where RTD is the value of the field SFN-SFN relative time difference. Infinity means that the uncertainty is larger than 1280 chips.
CHOICE PositioningMode	MP		
>UE based			(no data)
>UE assisted			(no data)

Condition	Explanation
IPDLs	This IE is mandatory present if IPDLs are applied and
	not needed otherwise.

11.3 Information element definitions

```
************
      MEASUREMENT INFORMATION ELEMENTS (10.3.7)
SFN-SFN-RelTimeDifference1 ::=
                                SEQUENCE {
   sfn-Offset
                                     INTEGER (0 .. 4095),
   sfn-sfn-Reltimedifference
                                     INTEGER (0.. 38399)
UE-Positioning-OTDOA-NeighbourCellInfo ::= SEQUENCE {
   modeSpecificInfo CHOICE {
       fdd
                                      SEQUENCE {
           primaryCPICH-Info
                                             PrimaryCPICH-Info
       tdd
                                     SEQUENCE {
           cellAndChannelIdentity
                                             CellAndChannelIdentity
       }
   frequencyInfo
                                     FrequencyInfo
   ue-positioning-IPDL-Paremeters
                                                UE-Positioning-IPDL-Parameters
   OPTIONAL.
   sfn-SFN-RelTimeDifference
                                   SFN-SFN-RelTimeDifferencel,
   sfn-SFN-Drift
                                     SFN-SFN-Drift
                                     OTDOA-SearchWindowSize,
   searchWindowSize
   positioningMode CHOICE{
                                             SEQUENCE {},
SEQUENCE {}
       ueBased
       ueAssisted
}
UE-Positioning-OTDOA-NeighbourCellInfo-UEB ::= SEQUENCE {
   modeSpecificInfo CHOICE {
       fdd
                                     SEQUENCE {
           primaryCPICH-Info
                                             PrimaryCPICH-Info
           cellAndChannelIdentity
                                             CellAndChannelIdentity
       }
   frequencyInfo
                                     FrequencyInfo
                                                                        OPTIONAL,
   ue-positioning-IPDL-Paremeters
                                     UE-Positioning-IPDL-Parameters
                                                                        OPTIONAL,
   sfn-SFN-RelTimeDifference
                                     SFN-SFN-RelTimeDifference1,
   sfn-SFN-Drift
                                     SFN-SFN-Drift
                                                                        OPTIONAL,
   searchWindowSize
                                      OTDOA-SearchWindowSize,
   relativeNorth
                                      INTEGER (-20000..20000)
                                                                        OPTIONAL,
```

```
relativeEast INTEGER (-20000..20000) OPTIONAL, relativeAltitude INTEGER (-4000..4000) OPTIONAL, fineSFN-SFN FineSFN-SFN, -- actual value = (IE value * 0.0625) + 876 roundTripTime INTEGER (0...32766) OPTIONAL
```

TSG-RAN Working Group 2 Meeting #27 Orlando, FL, USA, February 18th to 22nd 2002

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Proposed change	affec	ts: ૠ	(U)\$	SIM	ME	/UE	X	Radi	o Ac	cess Net	work	Core No	etwork
Title: ૠ	Pro	cedure	e Perfo	rmance	for TE	D UL	. Phy	ysical	Cha	annel Cor	ntrol		
Source: #	TS	G-RAN	WG2										
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Reason for change	Use Deta be fo	F (corr A (corr B (add C (fund D (edit illed exp bund in	rection) respond ition of ctional i torial mo blanation 3GPP I	wing cate Is to a co feature), modification ins of the TR 21.900 ysical ch	ion of f n) above	n in ar eature categ	ories	can		2 R96 R97 R98 R99 REL REL	e of the (G) (F) (F) (F) (F) (F) (F) (F) (F) (F) (F	REL-4 e following rel GSM Phase 2) Release 1996) Release 1997) Release 1999) Release 4) Release 5) ot specified.	
Summary of chang	ye: Ж	requispec	ired to ified foot analyction to implem	execute r physica ysis: a functionentation	modif al cha ion wh	ication nnel r nere the naving	ns ir ecor ne sp like	n UE nfigur Decific	is 80 ation	oms, inline n. on was fou	e with und ar R, wo	pecified. The performance mbiguous. Wuld affect wise.	÷
Consequences if not approved:	*			or timing ehaviou							manc	e for adjustm	nent.
Clauses affected:	H	13.5.	2										
Other specs Affected:	ж	Te	est spe	re specification	าร	ns	ж	25.	331	v3.9.0, C	R 132	22	
Other comments:	ж												

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13.5.2 RRC procedure performance values

NOTE: Times indicated in the table do not include cell reselection.

RRC Connection Management Procedures Broadcast of system information INFORMATION SYSTEM INFORMATION Master Information Block SYSTEM INFORMATION SYSTEM INFORMATION SYSTEM INFORMATION SYSTEM INFORMATION SYSTEM INFORMATION SYSTEM INFORMATION The content of a Mile received with no detectable errors. This mean that the UE shall buffer all system information data received after the Mile until the data can be processed according to the information the Mile, unless the Mile was
Broadcast of system information SYSTEM INFORMATION INFORMATION Master Information Block SYSTEM INFORMATION Master Information Block SYSTEM INFORMATION SYSTEM INFORMATION SYSTEM INFORMATION No system information data shall be lost due to processir of a MIB received with no detectable errors. This mean that the UE shall buffer all system information data received after the MIB until the data can be processed according to the information of
information INFORMATION System information message because there is no response message from the UE. Master Information Block SYSTEM INFORMATION SYSTEM INFORMATION No system information data shall be lost due to processir of a MIB received with no detectable errors. This mean that the UE shall buffer all system information data received after the MIB until the data can be processed according to the information.
because there is no response message from the UE. Master Information Block SYSTEM INFORMATION SYSTEM INFORMATION No system information data shall be lost due to processir of a MIB received with no detectable errors. This mean that the UE shall buffer all system information data received after the MIB until the data can be processed according to the information.
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Master Information Block SYSTEM INFORMATION SYSTEM INFORMATION SYSTEM INFORMATION No system information data shall be lost due to processir of a MIB received with no detectable errors. This mean that the UE shall buffer all system information data received after the MIB until the data can be processed according to the information.
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detectable errors. This mean that the UE shall buffer all system information data received after the MIB until the data can be processed according to the information.
that the UE shall buffer all system information data received after the MIB until the data can be processed according to the information
system information data received after the MIB until the data can be processed according to the information
received after the MIB until the data can be processed according to the information
data can be processed according to the information
according to the information
The Mile Inject the Mile was
received erroneously.
System Information Block type SYSTEM 10 NA
1 INFORMATION
System Information Block type SYSTEM 10 NA
2 INFORMATION
System Information Block type SYSTEM 10 NA
3 INFORMATION
System Information Block type SYSTEM 10 NA
4 INFORMATION
System Information Block type SYSTEM 10 NA
5 INFORMATION 10 NA
6 INFORMATION
System Information Block type SYSTEM 5 NA
8 INFORMATION 5
System Information Block type SYSTEM 5 NA
9 INFORMATION 5
System Information Block type SYSTEM 5 NA
10 INFORMATION 40 NA
System Information Block type SYSTEM 10 NA
11 INFORMATION 10 NA
System Information Block type SYSTEM 10 NA
12 INFORMATION
System Information Block type SYSTEM 10 NA
13 INFORMATION 10 NA
System Information Block type SYSTEM 10 NA
14 INFORMATION
System Information Block type SYSTEM 10 NA
15 INFORMATION
System Information Block type SYSTEM 10 NA
16 INFORMATION
System Information Block type SYSTEM 10 NA
18 INFORMATION

Procedure title:	UTRAN -> UE	UE -> UTRAN	N1	N2	Notes
RRC connection establishment Target state CELL_DCH	RRC CONNECTION SETUP	RRC CONNECTION SETUP COMPLETE	10	NA	N1 measures time to the start of tx / rx on DPCH. N2 cannot be specified, because RRC CONNECTION SETUP COMPLETE message is transmitted only after physical layer synchronisation, which also depends on the Node B. The performance of the physical layer synchronisation procedure is specified in [19] and [20]
RRC connection establishment Target state CELL_FACH	RRC CONNECTION SETUP	RRC CONNECTION SETUP COMPLETE	10	11	N1 and N2 applicable as defined (N2 can be tested from the initiation of the power ramp on RACH).
RRC connection release From CELL_DCH state	RRC CONNECTION RELEASE	RRC CONNECTION RELEASE COMPLETE	5	8	N1 sets the requirement for the time from the completion of the last repetition of the RRC CONNECTION RELEASE COMPLETE message to the release of the physical channel. N2 sets the requirement from the end of successful reception of the RRC CONNECTION RELEASE message to the start of the first transmission of the RRC CONNECTION RELEASE CONNECTION RELEASE COMPLETE message.
RRC connection release From CELL_FACH state	RRC CONNECTION RELEASE	RRC CONNECTION RELEASE COMPLETE	NA	11	N1 represents UE internal configuration that cannot be externally observed.
Paging	PAGING TYPE 1	CELL UPDATE	10	11+ T	T is the repetition period of SIB7 (applicable for FDD) and SIB14 (applicable for TDD)
UE capability enquiry	UE CAPABILITY ENQUIRY	UE CAPABILITY INFORMATION	NA	8	N1 is not applicable because the UE configuration does not change.
Security mode control	SECURITY MODE COMMAND	SECURITY MODE COMPLETE	5	8	
Signalling connection release procedure	SIGNALLING CONNECTION RELEASE		5	NA	N2 is not applicable because there is no response message.
Counter check	COUNTER CHECK	COUNTER CHECK RESPONSE	NA	8	N1 is not applicable because the UE configuration does not change.
Radio Bearer control procedures					
Radio bearer establishment Target state CELL_DCH	RADIO BEARER SETUP	RADIO BEARER SETUP COMPLETE / FAILURE	10	NA	N2 cannot be specified, because the RADIO BEARER SETUP COMPLETE / FAILURE message is transmitted only after physical layer synchronisation, which depends also on Node B.
Radio bearer establishment From state CELL_FACH to state CELL_FACH	RADIO BEARER SETUP	RADIO BEARER SETUP COMPLETE / FAILURE	10	11	

Procedure title:	UTRAN -> UE	UE -> UTRAN	N1	N2	Notes
Radio bearer establishment From CELL_DCH to CELL_FACH	RADIO BEARER SETUP	RADIO BEARER SETUP COMPLETE	NA	NA	N1 and N2 cannot be specified, because UE need to read SIBs on BCH before sending RADIO BEARER
Radio bearer reconfiguration	RADIO BEARER	RADIO BEARER RECONFIGURAT	10	NA	SETUP COMPLETE N2 cannot be specified, because the RADIO BEARER
Target state CELL_DCH	RECONFIGURA TION	ION COMPLETE / FAILURE			RECONFIGURATION COMPLETE / FAILURE message is transmitted only after physical layer synchronisation, which depends also on Node B.
Radio bearer reconfiguration From state CELL_FACH to state CELL_FACH	RADIO BEARER RECONFIGURA TION	RADIO BEARER RECONFIGURAT ION COMPLETE / FAILURE	10	11	
Radio bearer reconfiguration From state CELL_DCH to state CELL_FACH	RADIO BEARER RECONFIGURA TION	RADIO BEARER RECONFIGURAT ION COMPLETE	NA	NA	N1 and N2 cannot be specified, because UE need to read SIBs on BCH before sending RADIO BEARER RECONFIGURATION COMPLETE
Radio bearer release Target state CELL_DCH	RADIO BEARER RELEASE	RADIO BEARER RELEASE COMPLETE / FAILURE	10	11	
Radio bearer release From state CELL_FACH to state CELL_FACH	RADIO BEARER RELEASE	RADIO BEARER RELEASE COMPLETE / FAILURE	10	11	
Radio bearer release From state CELL_DCH to state CELL_FACH	RADIO BEARER RELEASE	RADIO BEARER RELEASE COMPLETE	NA	NA	N1 and N2 cannot be specified, because UE need to read SIBs on BCH before sending RADIO BEARER RECONFIGURATION COMPLETE
Transport channel reconfiguration Target state CELL_DCH	TRANSPORT CHANNEL RECONFIGURA TION	TRANSPORT CHANNEL RECONFIGURAT ION COMPLETE / FAILURE	10	NA	N2 cannot be specified, because the TRANSPORT CHANNEL RECONFIGURATION COMPLETE / FAILURE message is transmitted only after physical layer synchronisation, which depends also on Node B.
Transport channel reconfiguration From state CELL_FACH to state CELL_FACH	TRANSPORT CHANNEL RECONFIGURA TION	TRANSPORT CHANNEL RECONFIGURAT ION COMPLETE / FAILURE	10	11	
Transport channel reconfiguration From state CELL_DCH to state CELL_FACH	TRANSPORT CHANNEL RECONFIGURA TION	TRANSPORT CHANNEL RECONFIGURAT ION COMPLETE	NA	NA	N1 and N2 cannot be specified, because UE need to read SIBs on BCH before sending TRANSPORT CHANNEL RECONFIGURATION COMPLETE
Transport format combination control AM or UM RLC mode	TRANSPORT FORMAT COMBINATION CONTROL	TRANSPORT FORMAT COMBINATION CONTROL FAILURE	5	8	

Procedure title:	UTRAN -> UE	UE -> UTRAN	N1	N2	Notes
Transport format combination control	TRANSPORT FORMAT COMBINATION		5	NA	N2 is not applicable because no response message is defined.
Transparent mode Physical channel reconfiguration Target state CELL_DCH	PHYSICAL CHANNEL RECONFIGURA TION	PHYSICAL CHANNEL RECONFIGURAT ION COMPLETE / FAILURE	8	NA	N2 cannot be specified, because the PHYSICAL CHANNEL RECONFIGURATION COMPLETE / FAILURE message is transmitted only after physical layer synchronisation, which depends also on Node B.
Physical channel reconfiguration From state CELL_FACH to state CELL_FACH	PHYSICAL CHANNEL RECONFIGURA TION	PHYSICAL CHANNEL RECONFIGURAT ION COMPLETE / FAILURE	8	9	
Physical channel reconfiguration From state CELL_DCH to state CELL_FACH	PHYSICAL CHANNEL RECONFIGURA TION	PHYSICAL CHANNEL RECONFIGURAT ION COMPLETE	NA	NA	N1 and N2 cannot be specified, because UE need to read SIBs on BCH before sending PHYSICAL CHANNEL RECONFIGURATION COMPLETE
Physical Shared Channel Allocation [TDD only]	PHYSICAL SHARED CHANNEL ALLOCATION		5	NA	N2 is not applicable because no response message is defined.
Uplink Physical Channel Control [TDD only]	UPLINK PHYSICAL CHANNEL CONTROL		<u>8</u> NA	NA	Requirements for outer loop and timing advance adjustments are defined in [22] and [20]. N2 is not applicable because there is no response message.
RRC connection mobility procedures					
Cell update	CELL UPDATE CONFIRM	UTRAN MOBILITY INFORMATION CONFIRM	5	8	
		PHYSICAL CHANNEL RECONFIGURAT ION COMPLETE Target state CELL_FACH	8	9	
		PHYSICAL CHANNEL RECONFIGURAT ION COMPLETE Target state CELL_DCH	8	NA	N2 cannot be specified, because the PHYSICAL CHANNEL RECONFIGURATION COMPLETE / FAILURE message is transmitted only after physical layer synchronisation, which depends also on Node B.
		TRANSPORT CHANNEL RECONFIGURAT ION COMPLETE Target state CELL_FACH	10	11	

Procedure title:	UTRAN -> UE	UE -> UTRAN	N1	N2	Notes
		TRANSPORT CHANNEL RECONFIGURAT ION COMPLETE Target state CELL_DCH	10	NA	N2 cannot be specified, because the PHYSICAL CHANNEL RECONFIGURATION COMPLETE / FAILURE message is transmitted only after physical layer synchronisation, which depends also on Node B.
		RADIO BEARER RECONFIGURAT ION COMPLETE Target state CELL_FACH	10	11	
		RADIO BEARER RECONFIGURAT ION COMPLETE Target state CELL_DCH	10	NA	N2 cannot be specified, because the PHYSICAL CHANNEL RECONFIGURATION COMPLETE / FAILURE message is transmitted only after physical layer synchronisation, which depends also on Node B.
		RADIO BEARER RELEASE COMPLETE Target state CELL_DCH	10	11	
URA update	URA UPDATE CONFIRM	UTRAN MOBILITY INFORMATION CONFIRM	5	8	
UTRAN mobility information	UTRAN MOBILITY INFORMATION	UTRAN MOBILITY INFORMATION CONFIRM / FAILURE	5	8	
Active set update	ACTIVE SET UPDATE	ACTIVE SET UPDATE COMPLETE / FAILURE	NA	8	The requirements on UE combining and power control performance for both UL and DL are specified by RAN WG4 in [21] and [19].
					Also in case of branch addition the COMPLETE / FAILURE message is transmitted without waiting for the new branch to stabilise, therefore N2 is specified.
Inter-RAT handover to UTRAN	HANDOVER TO UTRAN COMMAND (other system)	HANDOVER TO UTRAN COMPLETE	NA	NA	The performance of this procedure is specified in 05.10.
Inter-RAT handover from UTRAN Measurement procedures	HANDOVER FROM UTRAN COMMAND	HANDOVER FROM UTRAN FAILURE	NA	NA	The performance of this procedure is specified in [19] and [20].
Measurement control	MEASUREMEN T CONTROL	MEASUREMENT CONTROL FAILURE	5	8	Response to measurement inquiry depends on physical layer measurement. Response time is defined in [19] and [20]. N1 and N2 only define the processing of the message.

TSG-RAN Working Group 2 Meeting #27 Orlando, FL, USA, February 18th to 22nd 2002

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How to create CRs using this form:

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- 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 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.

13.5.2 RRC procedure performance values

NOTE: Times indicated in the table do not include cell reselection.

Procedure title:	UTRAN -> UE	UE -> UTRAN	N1	N2	Notes
RRC Connection					
Management Procedures					
Broadcast of system information	SYSTEM INFORMATION				N2 is not applicable for any system information messages, because there is no response message from the UE.
Master Information Block	SYSTEM INFORMATION		5	NA	No system information data shall be lost due to processing of a MIB received with no detectable errors. This means that the UE shall buffer all system information data received after the MIB until the data can be processed according to the information in the MIB, unless the MIB was received erroneously.
System Information Block type 1	SYSTEM INFORMATION		10	NA	
System Information Block type 2	SYSTEM INFORMATION		10	NA	
System Information Block type 3	SYSTEM INFORMATION		10	NA	
System Information Block type 4	SYSTEM INFORMATION		10	NA	
System Information Block type 5	SYSTEM INFORMATION		10	NA	
System Information Block type 6	SYSTEM INFORMATION		10	NA	
System Information Block type 7	SYSTEM INFORMATION		5	NA	
System Information Block type 8	SYSTEM INFORMATION		10	NA	
System Information Block type 9	SYSTEM INFORMATION		5	NA	
System Information Block type 10	SYSTEM INFORMATION		5	NA	
System Information Block type 11	SYSTEM INFORMATION		10	NA	
System Information Block type 12	SYSTEM INFORMATION		10	NA	
System Information Block type 13	SYSTEM INFORMATION		10	NA	
System Information Block type 14	SYSTEM INFORMATION		10	NA	
System Information Block type 15	SYSTEM INFORMATION		10	NA	
System Information Block type 16	SYSTEM INFORMATION		10	NA	
System Information Block type 18	SYSTEM INFORMATION		10	NA	
RRC connection establishment Target state CELL_DCH	RRC CONNECTION SETUP	RRC CONNECTION SETUP COMPLETE	10	NA	N1 measures time to the start of tx / rx on DPCH. N2 cannot be specified, because RRC CONNECTION SETUP COMPLETE message is transmitted only after physical layer synchronisation, which also depends on the Node B. The performance of the physical layer synchronisation procedure is specified in [19] and [20]

Procedure title:	UTRAN -> UE	UE -> UTRAN	N1	N2	Notes
RRC connection	RRC	RRC	10	11	N1 and N2 applicable as
establishment	CONNECTION	CONNECTION			defined (N2 can be tested from
Target state CELL_FACH	SETUP	SETUP			the initiation of the power ramp
550	DDO	COMPLETE	_		on RACH).
RRC connection release From CELL_DCH state	RRC CONNECTION	RRC CONNECTION	5	8	N1 sets the requirement for the time from the completion of
Trom CLLL_DCH state	RELEASE	RELEASE			the last repetition of the RRC
	TELLTOL	COMPLETE			CONNECTION RELEASE
					COMPLETE message to the
					release of the physical
					channel.
					N2 sets the requirement from
					the end of successful
					reception of the RRC
					CONNECTION RELEASE
					message to the start of the first
					transmission of the RRC
					CONNECTION RELEASE COMPLETE message.
RRC connection release	RRC	RRC	NA	11	N1 represents UE internal
From CELL_FACH state	CONNECTION	CONNECTION			configuration that cannot be
	RELEASE	RELEASE			externally observed.
	DAOINO TYPE	COMPLETE	40	4.4	T: 11 ::::
Paging	PAGING TYPE 1	CELL UPDATE	10	11+ T	T is the repetition period of SIB7 (applicable for FDD) and
	'				SIB14 (applicable for TDD)
UE capability enquiry	UE CAPABILITY	UE CAPABILITY	NA	8	N1 is not applicable because
	ENQUIRY	INFORMATION			the UE configuration does not
Convity made control	SECURITY	SECURITY	5	8	change.
Security mode control	MODE	MODE	5	0	
	COMMAND	COMPLETE			
Signalling connection release	SIGNALLING		5	NA	N2 is not applicable because
procedure	CONNECTION				there is no response message.
Counter check	RELEASE COUNTER	COUNTER	NA	8	N1 is not applicable because
Counter check	CHECK	CHECK	INA	O	the UE configuration does not
	0112011	RESPONSE			change.
Radio Bearer control					
procedures Radio bearer establishment	RADIO	RADIO BEARER	10	NA	N2 cannot be specified
Radio bearer establishment	BEARER	SETUP	10	INA	N2 cannot be specified, because the RADIO BEARER
Target state CELL_DCH	SETUP	COMPLETE /			SETUP COMPLETE /
_		FAILURE			FAILURE message is
					transmitted only after physical
					layer synchronisation, which
Radio bearer establishment	RADIO	RADIO BEARER	10	11	depends also on Node B.
	BEARER	SETUP			
From state CELL_FACH to	SETUP	COMPLETE /			
state CELL_FACH	BADIO	FAILURE	NIA	NIA	N1 and N2 connet be
Radio bearer establishment	RADIO BEARER	RADIO BEARER SETUP	NA	NA	N1 and N2 cannot be specified, because UE need to
From CELL_DCH to	SETUP	COMPLETE			read SIBs on BCH before
CELL_FACH		_			sending RADIO BEARER
	BABIC	BABIC 55:555	4.5		SETUP COMPLETE
Radio bearer reconfiguration	RADIO BEARER	RADIO BEARER RECONFIGURAT	10	NA	N2 cannot be specified, because the RADIO BEARER
Target state CELL_DCH	RECONFIGURA	ION COMPLETE /			RECONFIGURATION
. argot state occe_borr	TION	FAILURE			COMPLETE / FAILURE
					message is transmitted only
					after physical layer
					synchronisation, which depends also on Node B.
Radio bearer reconfiguration	RADIO	RADIO BEARER	10	11	aspends also on Node D.
_	BEARER	RECONFIGURAT			
From state CELL_FACH to	RECONFIGURA	ION COMPLETE /			
state CELL_FACH	TION	FAILURE			

Procedure title:	UTRAN -> UE	UE -> UTRAN	N1	N2	Notes
Radio bearer reconfiguration From state CELL_DCH to state CELL_FACH	RADIO BEARER RECONFIGURA TION	RADIO BEARER RECONFIGURAT ION COMPLETE	NA	NA	N1 and N2 cannot be specified, because UE need to read SIBs on BCH before sending RADIO BEARER RECONFIGURATION COMPLETE
Radio bearer release Target state CELL_DCH	RADIO BEARER RELEASE	RADIO BEARER RELEASE COMPLETE / FAILURE	10	11	
Radio bearer release From state CELL_FACH to state CELL_FACH	RADIO BEARER RELEASE	RADIO BEARER RELEASE COMPLETE / FAILURE	10	11	
Radio bearer release From state CELL_DCH to state CELL_FACH	RADIO BEARER RELEASE	RADIO BEARER RELEASE COMPLETE	NA	NA	N1 and N2 cannot be specified, because UE need to read SIBs on BCH before sending RADIO BEARER RECONFIGURATION COMPLETE
Transport channel reconfiguration Target state CELL_DCH	TRANSPORT CHANNEL RECONFIGURA TION	TRANSPORT CHANNEL RECONFIGURAT ION COMPLETE / FAILURE	10	NA	N2 cannot be specified, because the TRANSPORT CHANNEL RECONFIGURATION COMPLETE / FAILURE message is transmitted only after physical layer synchronisation, which depends also on Node B.
Transport channel reconfiguration From state CELL_FACH to state CELL_FACH	TRANSPORT CHANNEL RECONFIGURA TION	TRANSPORT CHANNEL RECONFIGURAT ION COMPLETE / FAILURE	10	11	
Transport channel reconfiguration From state CELL_DCH to state CELL_FACH	TRANSPORT CHANNEL RECONFIGURA TION	TRANSPORT CHANNEL RECONFIGURAT ION COMPLETE	NA	NA	N1 and N2 cannot be specified, because UE need to read SIBs on BCH before sending TRANSPORT CHANNEL RECONFIGURATION COMPLETE
Transport format combination control	TRANSPORT FORMAT COMBINATION CONTROL	TRANSPORT FORMAT COMBINATION CONTROL FAILURE	5	8	
Physical channel reconfiguration Target state CELL_DCH	PHYSICAL CHANNEL RECONFIGURA TION	PHYSICAL CHANNEL RECONFIGURAT ION COMPLETE / FAILURE	8	NA	N2 cannot be specified, because the PHYSICAL CHANNEL RECONFIGURATION COMPLETE / FAILURE message is transmitted only after physical layer synchronisation, which depends also on Node B.
Physical channel reconfiguration From state CELL_FACH to state CELL_FACH	PHYSICAL CHANNEL RECONFIGURA TION	PHYSICAL CHANNEL RECONFIGURAT ION COMPLETE / FAILURE	8	9	
Physical channel reconfiguration From state CELL_DCH to state CELL_FACH	PHYSICAL CHANNEL RECONFIGURA TION	PHYSICAL CHANNEL RECONFIGURAT ION COMPLETE	NA	NA	N1 and N2 cannot be specified, because UE need to read SIBs on BCH before sending PHYSICAL CHANNEL RECONFIGURATION COMPLETE

Procedure title:	UTRAN -> UE	UE -> UTRAN	N1	N2	Notes
Physical Shared Channel Allocation [TDD only]	PHYSICAL SHARED CHANNEL ALLOCATION		5	NA	N2 is not applicable because no response message is defined.
Uplink Physical Channel Control [TDD only]	UPLINK PHYSICAL CHANNEL CONTROL		AM <u>8</u>	NA	Requirements for outer loop and timing advance adjustments are defined in [22] and [20]. N2 is not applicable because there is no response message.
RRC connection mobility procedures					
Cell update	CELL UPDATE CONFIRM	UTRAN MOBILITY INFORMATION CONFIRM	5	8	
		PHYSICAL CHANNEL RECONFIGURAT ION COMPLETE Target state CELL_FACH	8	9	
		PHYSICAL CHANNEL RECONFIGURAT ION COMPLETE Target state CELL_DCH	8	NA	N2 cannot be specified, because the PHYSICAL CHANNEL RECONFIGURATION COMPLETE / FAILURE message is transmitted only after physical layer synchronisation, which depends also on Node B.
		TRANSPORT CHANNEL RECONFIGURAT ION COMPLETE Target state CELL_FACH	10	11	
		TRANSPORT CHANNEL RECONFIGURAT ION COMPLETE Target state CELL_DCH	10	NA	N2 cannot be specified, because the PHYSICAL CHANNEL RECONFIGURATION COMPLETE / FAILURE message is transmitted only after physical layer synchronisation, which depends also on Node B.
		RADIO BEARER RECONFIGURAT ION COMPLETE Target state CELL_FACH	10	11	
		RADIO BEARER RECONFIGURAT ION COMPLETE Target state CELL_DCH	10	NA	N2 cannot be specified, because the PHYSICAL CHANNEL RECONFIGURATION COMPLETE / FAILURE message is transmitted only after physical layer synchronisation, which depends also on Node B.
		RADIO BEARER RELEASE COMPLETE Target state CELL_DCH	10	11	

Procedure title:	UTRAN -> UE	UE -> UTRAN	N1	N2	Notes
URA update	URA UPDATE CONFIRM	UTRAN MOBILITY INFORMATION CONFIRM	5	8	
UTRAN mobility information	UTRAN MOBILITY INFORMATION	UTRAN MOBILITY INFORMATION CONFIRM / FAILURE	5	8	
Active set update	ACTIVE SET UPDATE	ACTIVE SET UPDATE COMPLETE / FAILURE	NA	8	The requirements on UE combining and power control performance for both UL and DL are specified by RAN WG4 in [21] and [19]. Also in case of branch addition the COMPLETE / FAILURE message is transmitted without waiting for the new branch to stabilise, therefore N2 is specified.
Inter-RAT handover to UTRAN	HANDOVER TO UTRAN COMMAND (other system)	HANDOVER TO UTRAN COMPLETE	NA	NA	The performance of this procedure is specified in 05.10.
Inter-RAT handover from UTRAN	HANDOVER FROM UTRAN COMMAND	HANDOVER FROM UTRAN FAILURE	NA	NA	The performance of this procedure is specified in [19] and [20].
Measurement procedures					
Measurement control	MEASUREMEN T CONTROL	MEASUREMENT CONTROL FAILURE	5	8	Response to measurement inquiry depends on physical layer measurement. Response time is defined in [19] and [20]. N1 and N2 only define the processing of the message.

3GPP TSG-RAN WG2 Meeting #27 Orlando, USA, 18th - 22nd February 2002

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		be found in	3GPP	TR 21.900	•				REL-5	(Release 5)	

Reason for change: ₩

- When receiving Radio Control Reconfiguration messages certain IEs, being
 optional, may not be included by the UTRAN. If the presence of a IE is used
 to configure a certain feature, then the behaviour of the UE if this IE is absent
 is not clear whether the UE is to stop using the configuration corresponding
 to the previously received values or continue to use the previously received
 values.
- 2. The IE "Secondary CPICH Info" is optional in the IE "Downlink DPCH Info" for each RL. If the UTRAN includes this IE in one configuration message the UE will start using the secondary CPICH. If the URTRAN then does not include it in a subsequent reconfiguration message, it is not clear if the UE is meant to continue to use the previously received configuration or not. If the UE is required to continue to use the previously received configuration then it is not possible for the UTRAN to disable Secondary CPICH operation. It is required for the UTRAN to have the ability to turn off the use of the Secondary CPICH.
- 3. The IE "CPCH Set ID" is OP. It is not clear what the UE is to do in case this is not included in a subsequent message.
- 4. The IE "Header Compression Information" is optional. If a subsequent message does not include it the UE action is not clear. Without clear actions it will not be possible to stop header compressikon in case of relocation for e.g.

Summary of change: ₩

- 1. It is clarified that the UE shall not use any previously stored configuration for the IE "Polling Info".
 - 2. It is clarified that the UE shall stop acting on the IE "secondary CPICH Info" is not included in a subsequent message.
 - 3. It is clarified that the UE shall stop using the PCPCH assigned to it if the IE

"CPCH Set ID" is not included in a subsequent message and start using the last PRACH configured on the UL.

4. It is clarfied that the UE shall not use any stored header compression information if absent in a subsequent message.

Isolated Impact Analysis Corrected Functionality : Radio Bearer Control

Correction to a function where the specification was:

• ambiguous or not sufficiently explicit.

Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

The corrected functionality is Radio Control Reconfiguration, Secondary CPICH usage in the UE.

- If the network implements the change but not the UE, the UE might incorrectly not apply the right configuration in case of a UE implementation that decides to not use a previous configuration. In addition the UE would incorrectly continue to use the Secondary CPICH.
- If the UE implements the change but not the network, the UE might
 incorrectly not apply the right configuration in case of a NW implementation
 that decides to not use a previous configuration and thereby signal it as
 such by not including the IEs.

Consequences if not approved:

- The UTRAN will not be able to switch off a previously configured Polling mechanism.
 - 2. The UTRAN will not have the ability to turn off the usage of the Secondary CPICH by the UE.
 - 3. The UTRAN will not be able to stop CPCP usage.
 - 4. The UTRAN will not be able to stop the application of header compression.

Clauses affected:	8.6.4.9 , 8.6.4.10 , 8.6.6.12 , 8.6.6.20
Other specs affected:	# Other core specifications # 25.331 v3.9.0, CR 1318r1 Test specifications O&M Specifications
Other comments:	*

How to create CRs using this form:

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- 1) Fill out the above form. The symbols above marked \(\mathcal{H} \) contain pop-up help information about the field that they are closest to.
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8.6.4.9 RLC Info

If the IE "RLC Info" is included, the UE shall:

- configure the transmitting and receiving RLC entities in the UE for that radio bearer accordingly-
- if IE "Polling Info" is absent:
 - remove any previously stored configuration for the IE "Polling Info"

If the IE "Transmission RLC discard" is not included for UM RLC or TM RLC, RLC discard procedure shall not be used for that radio bearer.

8.6.4.10 PDCP Info

For RFC 3095:

- the chosen MAX_CID shall not be greater than the value "Maximum number of ROHC context sessions" as indicated in the IE "PDCP Capability";
- the configuration for the PACKET_SIZES_ALLOWED is FFS.

If IE "PDCP info" is included, the UE shall:

- if the radio bearer is connected to a CS domain radio access bearer:
 - set the variable INVALID_CONFIGURATION to TRUE.
- if the IE "PDCP PDU header" is set to the value "absent":
 - if the IE "Support for lossless SRNS relocation" is true:
 - set the variable INVALID_CONFIGURATION to TRUE.
- if the IE "PDCP PDU header" is set to the value "present":
 - if the IE "Support for lossless SRNS relocation" is false:
 - if the IE "Header compression information" is absent:
 - set the variable INVALID_CONFIGURATION to TRUE.
- if the IE "Header compression information" is absent:
 - not use Header compression after the successful completion of this procedure;
 - remove any stored configuration for the IE "Header compression information";
- configure the PDCP entity for that radio bearer accordingly;
- configure the RLC entity for that radio bearer according to the value of the IE "Support for lossless SRNS relocation".

8.6.6.12 Secondary CPICH info

If the IE Secondary CPICH info is included, the UE:

- may use the channelisation code according to IE "channelisation code", with scrambling code according to IE "DL scrambling code" in the IE "Secondary CPICH info", for channel estimation of that radio link;
- may use the pilot bits on DPCCH for channel estimation.

If the IE Secondary CPICH info is not included, the UE shall:

- not use any previously stored configuration corresponding to the usage of the Secondary CPICH info.

8.6.6.20 CPCH set ID (FDD only)

If the UE has the capability to use CPCH, the UE shall use the following general procedures. The UE shall:

- if an IE "CPCH set ID" is included in a dedicated message and not as part of IE "CPCH SET Info":
 - use the IE as an address tag to retrieve the corresponding stored "CPCH SET Info";
 - release any active dedicated physical channels in the uplink;
 - let the PCPCHs listed in the CPCH set be the default in the uplink for CPCH.
- if an IE "CPCH set ID" is included in a dedicated message and not as part of IE "CPCH SET Info", and if there is no corresponding stored "CPCH SET Info":
 - release any active dedicated physical channels in the uplink;
 - let the last assigned PRACH be the default in the uplink for RACH;
 - obtain current System Information on SCCPCH to obtain and store the "CPCH SET info" IE(s);
 - upon receipt of a "CPCH SET Info" which corresponds to the "CPCH set ID" IE:
 - let the PCPCHs listed in that CPCH set be the default in the uplink for CPCH;
- if an IE "CPCH set ID" is not included in a dedicated message and the UE prior to the receipt of this message had configured the PCPCH as the default in the uplink:
 - stop using the PCPCH;
 - let the last assigned PRACH be the default in the uplink for RACH;