Source:　TSG-RAN WG2

Title:　CRs to 25.331 on network sharing

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.331	2524	-	Rel-6	Correction to network sharing functionality	F	6.4.0	6.5.0	R2-050618	NTShar-UTRANEnh
25.331	2525	-	Rel-6	Network sharing corrections	F	6.4.0	6.5.0	R2-050619	NTShar-UTRANEnh

CR-Form-v7.1

CHANGE REQUEST

⌘ **25.331** CR **2524** ⌘**rev** **-** ⌘ Current version: **6.4.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME **X** Radio Access Network **X** Core Network ☐

Title: ⌘	Correction to network sharing functionality	
Source: ⌘	RAN WG2	
Work item code:⌘	NTShar-UTRANEnh	**Date:** ⌘ January 2005
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:** ⌘ Rel-6 Use one of the following releases: Ph2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6) Rel-7 (Release 7)

Reason for change: ⌘	1) The current text in RRC leaves some room for misinterpretation w.r.t. the group of PLMN's from which the UE shall select a "chosen PLMN"; 2) The current text indicates that inclusion in CELL_DCH state is not applicable, whereas the RNC might require to receive the information even in this state;
Summary of change:⌘	1) It is clarified from which (group of PLMNs) the UE shall select a PLMN for inclusion in the IDT; 2) It is specified that inclusion of a PLMN Indentity in the IDT is also applicable in CELL_DCH state;
Consequences if not approved: ⌘	The indicated unclarities will remain.

Clauses affected:	⌘	8.1.8.2		
		Y	**N**	
Other specs affected:	⌘			Other core specifications ⌘
				Test specifications
				O&M Specifications
Other comments:	⌘			

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.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.
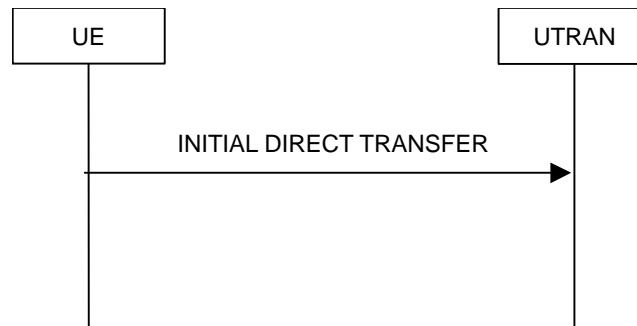
8.1.8 Initial Direct transfer

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 the UE shall:

1> set the variable ESTABLISHMENT_CAUSE to the cause for establishment indicated by upper layers.

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

1> perform an RRC connection establishment procedure, according to subclause 8.1.3;

NOTE: If an RRC connection establishment is ongoing, this procedure continues unchanged, i.e. it is not interrupted. When the ongoing RRC connection establishment fails, a new RRC establishment procedure is performed, possibly using a different cause value.

1> if the RRC connection establishment procedure was not successful:

2> indicate failure to establish the signalling connection to upper layers and end the procedure.

1> when the RRC connection establishment procedure is completed successfully:

2> 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:

1> perform a cell update procedure, according to subclause 8.3.1, using the cause "uplink data transmission";

1> when the cell update procedure completed successfully:

2> continue with the initial direct transfer procedure as below.

The UE shall, in the INITIAL DIRECT TRANSFER message:

1> set the IE "NAS message" as received from upper layers; and

1> set the IE "CN domain identity" as indicated by the upper layers; and

1> set the IE "Intra Domain NAS Node Selector" as follows:

2> derive the IE "Intra Domain NAS Node Selector" from TMSI/PMTSI, IMSI, or IMEI; and

2> 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.

1> if the UE, on the existing RRC connection, has received a dedicated RRC message containing the IE "PLMN Identity" which replaced the contents of the IE "CN Information Info" contained in the same message:

    2> set the IE "PLMN identity" in the INITIAL DIRECT TRANSFER message to the latest PLMN information received via dedicated RRC signalling. If NAS has indicated the PLMN towards which a signalling connection is requested, and this PLMN is not in agreement with the latest PLMN information received via dedicated RRC signalling, then the initial direct transfer procedure shall be aborted, and NAS shall be informed.

1> if the UE, on the existing RRC connection, has not received a dedicated RRC message containing the IE "CN Information Info" , and if the IE "Multiple PLMN List" was broadcast in the cell where the current RRC connection was established:

    2> set the IE "PLMN identity" in the INITIAL DIRECT TRANSFER message to the multiple PLMN chosen by higher layers [5, 25] amongst the PLMNs broadcast in the cell where the RRC connection was established.

1> ~~if the initial direct transfer procedure is initiated in idle mode or connected mode but in a state which is not CELL_DCH state:~~

2> ~~if the IE "Multiple PLMN List" is broadcast in the current serving cell~~

    3> ~~set the IE "PLMN identity" to indicate the multiple PLMN chosen by the UE.~~

1> if the IE "Activated service list" within variable MBMS_ACTIVATED_SERVICES includes one or more MBMS services with the IE "Service type" set to "Multicast" and;

1> if the IE "CN domain identity" as indicated by the upper layers is set to "CS domain" and;

1> if the variable ESTABLISHED_SIGNALLING_CONNECTIONS does not include the CN domain identity 'PS domain':

    2> include the IE "MBMS joined information";

    2> include the IE "P-TMSI" within the IE "MBMS joined information" if a valid PTMSI is available.

1> if the variable ESTABLISHMENT_CAUSE_ is initialised:

    2> set the IE "Establishment cause" to the value of the variable ESTABLISHMENT_CAUSE;

    2> clear the variable ESTABLISHMENT_CAUSE.

1> calculate the START according to subclause 8.5.9 for the CN domain as set in the IE "CN Domain Identity"; and

1> include the calculated START value for that CN domain in the IE "START".

The UE shall:

1> transmit the INITIAL DIRECT TRANSFER message on the uplink DCCH using AM RLC on signalling radio bearer RB3;

1> when the INITIAL DIRECT TRANSFER message has been submitted to lower layers for transmission:

    2> confirm the establishment of a signalling connection to upper layers; and

    2> add the signalling connection with the identity indicated by the IE "CN domain identity" in the variable ESTABLISHED_SIGNALLING_CONNECTIONS.

1> when the successful delivery of the INITIAL DIRECT TRANSFER message has been confirmed by RLC:

    2> 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.

CR-Form-v7.1

CHANGE REQUEST

⌘   **25.331** CR **2525** ⌘ **rev** **-** ⌘   Current version: **6.4.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐   ME **X** Radio Access Network **X** Core Network ☐

Title: ⌘	Network sharing corrections
Source: ⌘	RAN WG2
Work item code: ⌘	NTShar-UTRANEnh **Date:** ⌘ Feb/2005

Category: ⌘ **F**   **Release:** ⌘ Rel-6

Use <u>one</u> of the following categories: Use <u>one</u> of the following releases:

F	(correction)	Ph2	(GSM Phase 2)
A	(corresponds to a correction in an earlier release)	R96	(Release 1996)
B	(addition of feature),	R97	(Release 1997)
C	(functional modification of feature)	R98	(Release 1998)
D	(editorial modification)	R99	(Release 1999)

Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Rel-4   (Release 4)
Rel-5   (Release 5)
Rel-6   (Release 6)
Rel-7   (Release 7)

Reason for change: ⌘

1. Currently, TS25.331 supports that UTRAN may include a PLMN identity in several RRC messages (PHYSICAL CHANNEL RECONFIGURATION, RADIO BEARER RECONFIGURATION, RADIO BEARER RELEASE, RADIO BEARER SETUP, TRANSPORT CHANNEL RECONFIGURATION and UTRAN MOBILITY INFORMATION), to inform UE about a new PLMN at e.g. SRNS relocation in a shared network scenario. But also the messages ACTIVE SET UPDATE, CELL UPDATE CONFIRM and URA UPDATE CONFIRM can be used for this purpose, and should therefore also contain an IE PLMN Identity.

2. In section 8.2.2.3, the UE actions related to IE "PLMN Identity" are placed after "…the procedure ends".

3. The notes at the end of sections 8.2.2.3, 8.3.3.3 and 8.6.1.2 for how UTRAN should set existing IE "PLMN Identity" are not clear, and need some enhancements.

Summary of change: ⌘ The IE "PLMN identity" in messages PHYSICAL CHANNEL RECONFIGURATION, RADIO BEARER RECONFIGURATION, RADIO BEARER RELEASE, RADIO BEARER SETUP, TRANSPORT CHANNEL RECONFIGURATION and UTRAN MOBILITY INFORMATION has been deleted.

A new IE "Primary PLMN identity" is introduced in IE "CN Information Info" and IE "CN Information Info Full". This means that all messages that can be used at SRNS relocation can be used also in a shared network scenario. This IE "Primary

		PLMN identity" will contain the PLMN Identity of one of the sharing PLMNs, as set by UTRAN. By introducing a new IE "Primary PLMN identity", compatibility problems with UEs not supporting Network sharing (i.e., supporting the "common PLMN identity" of the MIB only) is avoided. A note is added to clarify the prefered UTRAN behaviour when setting these IEs.
Consequences if not approved:	⌘	The Network sharing function is not supported in all SRNS relocation scenarios.

Clauses affected:	⌘	2, 8.2.2.3, 8.3.3.3, 8.6.1.2, 10.2.22, 10.2.27, 10.2.30, 10.2.33, 10.2.50, 10.2.62, 10.3.1.3, 10.3.1.3a, 11.2

			Y	N			
Other specs affected:	⌘			X	Other core specifications	⌘	
				X	Test specifications		
				X	O&M Specifications		

Other comments:	⌘	

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

2   References

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

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

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1]   3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2]   3GPP TS 25.301: "Radio Interface Protocol Architecture".

[3]   3GPP TS 25.303: "Interlayer Procedures in Connected Mode".

[4]   3GPP TS 25.304: "UE Procedures in Idle Mode and Procedures for Cell Reselection in Connected Mode".

[5]   3GPP TS 24.008: "Mobile radio interface layer 3 specification; Core Network Protocols; Stage 3".

[6]   3GPP TS 25.103: "RF parameters in support of RRM".

[7]   3GPP TS 25.215: "Physical layer – Measurements (FDD)".

[8]   3GPP TS 25.225: "Physical layer – Measurements (TDD)".

[9]   3GPP TS 25.401: "UTRAN overall description".

[10]   3GPP TS 25.402: "Synchronization in UTRAN; Stage 2".

[11]   3GPP TS 23.003: "Numbering, addressing and identification".

[12]   ICD-GPS-200: "Navstar GPS Space Segment/Navigation User Interface".

[13]   RTCM-SC104: "RTCM Recommended Standards for Differential GNSS Service (v.2.2)".

[14]   3GPP TR 25.921: "Guidelines and principles for protocol description and error handling".

[15]   3GPP TS 25.321: "Medium Access Control (MAC) protocol specification".

[16]   3GPP TS 25.322: "Radio Link Control (RLC) protocol specification".

[17]   3GPP TS 24.007: "Mobile radio interface signalling layer 3; General aspects".

[18]   3GPP TS 25.305: "Stage 2 Functional Specification of UE Positioning in UTRAN".

[19]   3GPP TS 25.133: "Requirements for Support of Radio Resource Management (FDD)".

[20]   3GPP TS 25.123: "Requirements for Support of Radio Resource Management (TDD)".

[21]   3GPP TS 25.101: "UE Radio Transmission and Reception (FDD)".

[22]   3GPP TS 25.102: "UE Radio Transmission and Reception (TDD)".

[23]   3GPP TS 23.060: "General Packet Radio Service (GPRS); Service description; Stage 2".

[24]   3GPP TS 23.032: "Universal Geographical Area Description (GAD)".

[25]   3GPP TS 23.122: "Non-Access-Stratum functions related to Mobile Station (MS) in idle mode".

[26]   3GPP TS 25.211: "Physical channels and mapping of transport channels onto physical channels (FDD)".

[27]   3GPP TS 25.212: "Multiplexing and channel coding (FDD)".

[28]   3GPP TS 25.213: "Spreading and modulation (FDD)".

[29]   3GPP TS 25.214: "Physical layer procedures (FDD)".

[30]   3GPP TS 25.221: "Physical channels and mapping of transport channels onto physical channels (TDD)".

[31]   3GPP TS 25.222: "Multiplexing and channel coding (TDD)".

[32]   3GPP TS 25.223: "Spreading and modulation (TDD)".

[33]   3GPP TS 25.224: "Physical Layer Procedures (TDD)".

[34]   3GPP TS 25.302: "Services provided by the physical layer ".

[35]   3GPP TS 25.306 "UE Radio Access Capabilities".

[36]   3GPP TS 25.323: "Packet Data Convergence Protocol (PDCP) Specification".

[37]   3GPP TS 25.324: "Broadcast/Multicast Control BMC".

[38]   3GPP TR 25.922: "Radio resource management strategies".

[39]   3GPP TR 25.925: "Radio interface for broadcast/multicast services".

[40]   3GPP TS 33.102: "3G Security; Security Architecture".

[41]   3GPP TS 34.108: "Common Test Environments for User Equipment (UE) Conformance Testing".

[42]   3GPP TS 34.123-2: "User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification".

[43]   3GPP TS 44.018: "Mobile radio interface layer 3 specification; Radio Resource Control Protocol".

[44]   3GPP TS 44.060: "General Packet Radio Service (GPRS); Mobile Station (MS) - Base Station System (BSS) interface; Radio Link Control/Medium Access Control (RLC/MAC) protocol".

[45]   3GPP TS 45.005: "Radio transmission and reception".

[46]   3GPP TS 45.008: "Radio subsystem link control".

[47]   ITU-T Recommendation X.680 (07/2002) "Information Technology - Abstract Syntax Notation One (ASN.1): Specification of basic notation".

[48]   ITU-T Recommendation X.681 (07/2002) "Information Technology - Abstract Syntax Notation One (ASN.1): Information object specification".

[49]   ITU-T Recommendation X.691 (07/2002) "Information technology - ASN.1 encoding rules: Specification of Packed Encoding Rules (PER)".

[50]   3GPP TS 31.102: "Characteristics of the USIM Application".

[51]   3GPP TS 25.308: "High Speed Downlink Packet Access (HSDPA): Overall Description; Stage 2".

[52]   IANA ROHC profile identifier definition (http://www.iana.org/assignments/rohc-pro-ids).

[53]   3GPP TS 44.118: "Mobile radio interface layer 3 specification; Radio Resource Control Protocol, Iu Mode".

[54]   3GPP TS 23.246: "Multimedia Broadcast Multicast Service; Architecture and Functional Description".

[55]   3GPP TS 25.346: " Introduction of the Multimedia Broadcast Multicast Service (MBMS) in the Radio Access Network (Stage-2)".

[56]   3GPP TR 25.992: "Multimedia Broadcast Multicast Service (MBMS); UTRAN/GERAN Requirements".

[x]   3GPP TS 25.413: "UTRAN Iu Interface RANAP Signalling".

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:

    1> be able to receive any of the following messages:

        2> RADIO BEARER SETUP message; or

        2> RADIO BEARER RECONFIGURATION message; or

        2> RADIO BEARER RELEASE message; or

        2> TRANSPORT CHANNEL RECONFIGURATION message; or

        2> PHYSICAL CHANNEL RECONFIGURATION message;

    1> be able to perform a hard handover and apply physical layer synchronisation procedure A as specified in [29], even if no prior UE measurements have been performed on the target cell and/or frequency.

In case the reconfiguration procedure is used to remove all existing RL(s) in the active set while new RL(s) are established the UE shall:

    1> if the UE has a pending "TGPS reconfiguration CFN" at the activation time received in the reconfiguration message and the reconfiguration requests a timing re-initialised hard handover (see subclause 8.3.5.1), the UE may:

        2> abort the pending CM activation;

        2> set the CM_PATTERN_ACTIVATION_ABORTED to TRUE.

    1> otherwise:

        2> set the CM_PATTERN_ACTIVATION_ABORTED to FALSE.

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:

    1> set the variable ORDERED_RECONFIGURATION to TRUE;

    1> if the UE will enter the CELL_DCH state from any state other than CELL_DCH state at the conclusion of this procedure:

        2> perform the physical layer synchronisation procedure A as specified in [29] (FDD only).

    1> 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:

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

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

1> 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:

2> act upon the IE "PDSCH code mapping" as specified in subclause 8.6; and

2> infer that the PDSCH will be transmitted from the cell from which the downlink DPCH is transmitted.

1> 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:

1> 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.

In case the UE receives a RADIO BEARER RECONFIGURATION message with the IE "Specification mode" set to "Preconfiguration" while the message is not sent through GERAN *Iu mode,* the UE behaviour is unspecified.

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

1> in FDD; or

1> in TDD when "Primary CCPCH Info" is included indicating a new target cell and "New C-RNTI" is not specified:

2> remove any C-RNTI from MAC;

2> clear the variable C_RNTI.

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

1> clear any stored IE "Downlink HS-PDSCH information";

1> determine the value for the HS_DSCH_RECEPTION variable and take the corresponding actions as described in subclause 8.5.25;

1> clear any stored IE "E-DCH information";

1> determine the value for the E_DCH_TRANSMISSION variable and take the corresponding actions as described in subclause 8.5.28.

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

1> remove any DSCH-RNTI from MAC;

1> 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:

1> if the IE "Uplink DPCH Info" is absent, not change its current UL Physical channel configuration;

1> in TDD:

2> if "Primary CCPCH Info" is included indicating a new target cell and "New C-RNTI" is not specified:

3> remove any C-RNTI from MAC;

3> clear the variable C_RNTI.

2> if "Primary CCPCH Info" is included indicating a new target cell and "New H-RNTI" is not specified:

>>> 3> remove any H-RNTI from MAC;

>>> 3> clear the variable H_RNTI;

>>> 3> determine the value for the HS_DSCH_RECEPTION variable and take the corresponding actions as described in subclause 8.5.25.

> 1> if "DPCH frame offset" is included for one or more RLs in the active set:

>> 2> use its value to determine the beginning of the DPCH frame in accordance with the following:

>>> 3> if the received IE "DPCH frame offset" is across the value range border compared to the DPCH frame offset currently used by the UE:

>>>> 4> consider it to be a request to adjust the timing with 256 chips across the frame border (e.g. if the UE receives value 0 while the value currently used is 38144 consider this as a request to adjust the timing with +256 chips).

>>> 3> if after taking into account value range borders, the received IE "DPCH frame offset" corresponds to a request to adjust the timing with a step exceeding 256 chips:

>>>> 4> set the variable INVALID_CONFIGURATION to TRUE.

>>> 3> and the procedure ends.

>> 2> adjust the radio link timing accordingly.

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

> 1> if the IE "Frequency info" is included in the received reconfiguration message:

>> 2> select a suitable UTRA cell according to [4] on that frequency;

>> 2> if the UE finds a suitable UTRA cell on that frequency:

>>> 3> 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):

>>>> 4> initiate a cell update procedure according to subclause 8.3.1 using the cause "Cell reselection";

>>>> 4> when the cell update procedure completed successfully:

>>>>> 5> 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" and proceed as below.

>> 2> else, if the UE can not find a suitable UTRA cell on that frequency but it finds a suitable UTRA cell on another frequency:

>>> 3> initiate a cell update procedure according to subclause 8.3.1 using the cause "Cell reselection";

>>> 3> when the cell update procedure completed successfully:

>>>> 4> 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" and proceed as below.

> 1> if the IE "Frequency info" is not included in the received reconfiguration message:

>> 2> select a suitable UTRA cell according to [4];

>> 2> if the UE finds a suitable UTRA cell on the current frequency:

>>> 3> 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):

       4> initiate a cell update procedure according to subclause 8.3.1 using the cause "Cell reselection";

       4> when the cell update procedure completed successfully:

          5> 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" and proceed as below.

   2> else, if the UE can not find a suitable UTRA cell on the current frequency but it finds a suitable UTRA cell on another frequency:

     3> initiate a cell update procedure according to subclause 8.3.1 using the cause "Cell reselection";

     3> when the cell update procedure completed successfully:

       4> 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" and proceed as below.

1> 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 the variable TIMERS_AND_CONSTANTS;

1> select PRACH according to subclause 8.5.17;

1> select Secondary CCPCH according to subclause 8.5.19;

1> use the transport format set given in system information;

1> if the IE "UTRAN DRX cycle length coefficient" is included in the same message:

   2> ignore that IE and stop using DRX.

1> if the contents of the variable C_RNTI is empty:

   2> perform a cell update procedure according to subclause 8.3.1 using the cause "Cell reselection";

   2> when the cell update procedure completed successfully:

     3> if the UE is in CELL_PCH or URA_PCH state:

       4> initiate a cell update procedure according to subclause 8.3.1 using the cause "Uplink data transmission";

       4> 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:

1> if the IE "Frequency info" is included in the received reconfiguration message:

   2> select a suitable UTRA cell according to [4] on that frequency;

   2> if the UE finds a suitable UTRA cell on that frequency:

     3> 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):

       4> initiate a cell update procedure according to subclause 8.3.1 using the cause "cell reselection";

       4> when the cell update procedure completed successfully:

          5> 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" and proceed as below.

   2> else, if the UE can not find a suitable UTRA cell on that frequency but it finds a suitable UTRA cell on another frequency:

3> initiate a cell update procedure according to subclause 8.3.1 using the cause "Cell reselection";

3> when the cell update procedure completed successfully:

4> 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" and proceed as below.

1> if the IE "Frequency info" is not included in the received reconfiguration message:

2> if the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD) is included the UE shall either:

3> ignore the content of the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD) and proceed as below;

2> or:

3> if the received reconfiguration message included the IE "Primary CPICH info" (for FDD) or "Primary CPCH info" (for TDD), and it is different from the current cell:

4> initiate a cell update procedure according to subclause 8.3.1 using the cause "Cell reselection";

4> when the cell update procedure completed successfully:

5> 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" and proceed as below.

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

1> stop timer T305.

If after state transition the UE enters CELL_PCH or URA_PCH state, the UE shall:

1> if the IE "UTRAN DRX cycle length coefficient" is not included in the same message:

2> set the variable INVALID_CONFIGURATION to TRUE.

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:

1> if the received reconfiguration message included the IE "Downlink counter synchronisation info"; or

1> if the received reconfiguration message is a RADIO BEARER RECONFIGURATION and the IE "New U-RNTI" is included:

2> if the variable PDCP_SN_INFO is empty:

3> configure the corresponding RLC entity for all AM and UM radio bearers and AM and UM signalling radio bearers except RB2 to "stop".

2> else:

3> configure the RLC entity for signalling radio bearers RB1, RB3 and RB4 to "stop";

3> configure the RLC entity for UM and AM radio bearers for which the IE "PDCP SN Info" is not included to "stop".

2> re-establish the RLC entity for RB2;

2> for the downlink and the uplink, apply the ciphering configuration as follows:

3> if the received re-configuation message included the IE "Ciphering Mode Info":

4> use the ciphering configuration in the received message when transmitting the response message.

3> if the ciphering configuration for RB2 from a previously received SECURITY MODE COMMAND has not yet been applied because the activation times not having been reached:

      4> if the previous SECURITY MODE COMMAND was received due to new keys being received:

         5> consider the new ciphering configuration to include the received new keys;

         5> initialise the HFN component of the uplink COUNT-C and downlink COUNT-C of SRB2 as indicated in subclause 8.1.12.3.1.

      4> if the ciphering configuration for RB2 from a previously received SECURITY MODE COMMAND has not yet been applied because of the corresponding activation times not having been reached and the previous SECURITY MODE COMMAND caused a change in LATEST_CONFIGURED_CN_DOMAIN:

         5> consider the new ciphering configuration to include the keys associated with the LATEST_CONFIGURED_CN_DOMAIN;

         5> initialise the HFN component of the uplink COUNT-C and downlink COUNT-C of SRB2 to the most recently transmitted IE "START list" or IE "START" for the LATEST_CONFIGURED_CN_DOMAIN at the reception of the previous SECURITY MODE COMMAND.

      4> apply the new ciphering configuration immediately following RLC re-establishment.

    3> else:

      4> continue using the current ciphering configuration.

  2> set the new uplink and downlink HFN component of COUNT-C of RB2 to MAX(uplink HFN component of COUNT-C of RB2, downlink HFN component of COUNT-C of RB2);

  2> increment by one the downlink and uplink values of the HFN of COUNT-C for RB2;

  2> calculate the START value according to subclause 8.5.9;

  2> include the calculated START values for each CN domain in the IE "START list" in the IE "Uplink counter synchronisation info".

1> if the received reconfiguration message did not include the IE "Downlink counter synchronisation info":

  2> if the variable START_VALUE_TO_TRANSMIT is set:

    3> include and set the IE "START" to the value of that variable.

  2> if the variable START_VALUE_TO_TRANSMIT is not set and the IE "New U-RNTI" is included:

    3> calculate the START value according to subclause 8.5.9;

    3> include the calculated START values for each CN domain in the IE "START list" in the IE "Uplink counter synchronisation info".

  2> if the received reconfiguration message caused a change in the RLC size for any RB using RLC-AM:

    3> calculate the START value according to subclause 8.5.9;

    3> include the calculated START values for the CN domain associated with the corresponding RB identity in the IE "START list" in the IE "Uplink counter synchronisation info".

1> if the received reconfiguration message contained the IE "Ciphering mode info" or contained the IE "Integrity protection mode info":

  2> set the IE "Status" in the variable SECURITY_MODIFICATION for all the CN domains in the variable SECURITY_MODIFICATION to "Affected".

1> if the received reconfiguration message contained the IE "Ciphering mode info":

  2> if the reconfiguration message is not used to perform SRNS relocation with change of ciphering algorithm:

    3> the UE behaviour is not specified.

>2> if the message is used to perform a timing re-initialised hard handover:

>>3> if IE "Ciphering activation time for DPCH" is included:

>>>4> the UE behaviour is not specified.

>2> else:

>>3> if the reconfiguration message is used to setup radio bearer(s) using RLC-TM; or

>>3> if radio bearer(s) using RLC-TM already exist:

>>>4> if IE "Ciphering activation time for DPCH" is not included:

>>>>5> the UE behaviour is not specified.

>1> if the received reconfiguration message did not contain the IE "Ciphering activation time for DPCH" in IE "Ciphering mode info":

>>2> if prior to this procedure there exist no transparent mode RLC radio bearers:

>>>3> if, at the conclusion of this procedure, the UE will be in CELL_DCH state; and

>>>3> if, at the conclusion of this procedure, at least one transparent mode RLC radio bearer exists:

>>>>4> include the IE "COUNT-C activation time" and specify a CFN value for this IE that is a multiple of 8 frames (CFN mod 8 = 0) and lies at least 200 frames ahead of the CFN in which the response message is first transmitted.

>NOTE: UTRAN should not include the IE "Ciphering mode info" in any reconfiguration message unless it is also used to perform an SRNS relocation with change of ciphering algorithm.

>1> 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

>1> clear that entry;

>1> if the variable PDCP_SN_INFO is not empty:

>>2> include the IE "RB with PDCP information list" and set it to the value of the variable PDCP_SN_INFO.

>1> 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):

>>2> set the IE "Uplink Timing Advance" according to subclause 8.6.6.26.

>1> if the IE "Integrity protection mode info" was present in the received reconfiguration message:

>>2> 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 URA_PCH state, the UE shall, after the state transition and transmission of the response message:

>1> if the IE "Frequency info" is included in the received reconfiguration message:

>>2> select a suitable UTRA cell according to [4] on that frequency.

>>2> if the UE can not find a suitable UTRA cell on that frequency but it finds a suitable UTRA cell on another frequency:

>>>3> proceed as below.

>1> if the IE "Frequency info" is not included in the received reconfiguration message:

>>2> select a suitable UTRA cell according to [4].

>1> prohibit periodical status transmission in RLC;

1> remove any C-RNTI from MAC;

1> clear the variable C_RNTI;

1> 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 the variable TIMERS_AND_CONSTANTS;

1> select Secondary CCPCH according to subclause 8.5.19;

1> if the IE "UTRAN DRX cycle length coefficient" is included in the same message:

   2> use the value in the IE "UTRAN DRX Cycle length coefficient" for calculating Paging occasion and PICH Monitoring Occasion as specified in subclause 8.6.3.2.

1> if the criteria for URA update caused by "URA reselection" according to subclause 8.3.1 are fulfilled after cell selection:

   2> initiate a URA update procedure according to subclause 8.3.1 using the cause "URA reselection";

   2> when the URA update procedure is successfully completed:

      3> the procedure ends.

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

1> if the IE "Frequency info" is included in the received reconfiguration message:

   2> select a suitable UTRA cell according to [4] on that frequency.

   2> if the UE finds a suitable UTRA cell on that frequency:

      3> 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):

         4> initiate a cell update procedure according to subclause 8.3.1 using the cause "Cell reselection";

         4> proceed as below.

   2> else, if the UE can not find a suitable UTRA cell on that frequency but it finds a suitable UTRA cell on another frequency:

      3> initiate a cell update procedure according to subclause 8.3.1 using the cause "Cell reselection";

      3> proceed as below.

1> if the IE "Frequency info" is not included in the received reconfiguration message:

   2> select a suitable UTRA cell according to [4].

   2> if the UE finds a suitable UTRA cell on the current frequency:

      3> 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):

         4> initiate a cell update procedure according to subclause 8.3.1 using the cause "Cell reselection";

         4> proceed as below.

   2> else, if the UE can not find a suitable UTRA cell on the current frequency but it finds a suitable UTRA cell on another frequency:

      3> initiate a cell update procedure according to subclause 8.3.1 using the cause "Cell reselection";

      3> proceed as below.

  1> prohibit periodical status transmission in RLC;

  1> remove any C-RNTI from MAC;

  1> clear the variable C_RNTI;

  1> 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 the variable TIMERS_AND_CONSTANTS;

  1> select Secondary CCPCH according to subclause 8.5.19;

  1> if the IE "UTRAN DRX cycle length coefficient" is included in the same message:

    2> use the value in the IE "UTRAN DRX Cycle length coefficient" for calculating Paging occasion and PICH Monitoring Occasion as specified in subclause 8.6.3.2.

  1> the procedure ends.

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

  1> if the IE "Frequency info" is included in the received reconfiguration message:

    2> select a suitable UTRA cell according to [4] on that frequency.

    2> if the UE finds a suitable UTRA cell on that frequency:

      3> 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):

        4> initiate a cell update procedure according to subclause 8.3.1 using the cause "cell reselection";

        4> proceed as below.

    2> else, if the UE can not find a suitable UTRA cell on that frequency but it finds a suitable UTRA cell on another frequency:

      3> initiate a cell update procedure according to subclause 8.3.1 using the cause "Cell reselection";

      3> proceed as below.

  1> if the IE "Frequency info" is not included in the received reconfiguration message:

    2> if the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD) is included the UE shall either:

      3> ignore the content of the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD) and proceed as below;

    2> or:

      3> if the received reconfiguration message included the IE "Primary CPICH info" (for FDD) or "Primary CPCH info" (for TDD), and it is different from the current cell:

        4> initiate a cell update procedure according to subclause 8.3.1 using the cause "Cell reselection";

        4> proceed as below.

  1> prohibit periodical status transmission in RLC;

  1> remove any C-RNTI from MAC;

1> clear the variable C_RNTI;

1> 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 the variable TIMERS_AND_CONSTANTS;

1> select Secondary CCPCH according to subclause 8.5.19;

1> if the IE "UTRAN DRX cycle length coefficient" is included in the same message:

2> use the value in the IE "UTRAN DRX Cycle length coefficient" for calculating Paging occasion and PICH Monitoring Occasion as specified in subclause 8.6.3.2.

1> the procedure ends.

The UE shall:

1> if any of the messages contain the IE "PLMN Identity":

2> replace the PLMN identity in CN information info with this PLMN identity, even if CN information info do not contain any PLMN identity.

NOTE: At handover to a target cell broadcasting multiple PLMN identities, the IE PLMN identity in these messages should contain the PLMN identity signalled in RANAP RELOCATION REQUEST at handovers.

8.3.3.3 Reception of UTRAN MOBILITY INFORMATION message by the UE

When the UE receives a UTRAN MOBILITY INFORMATION message, it shall:

1> act on received information elements as specified in subclause 8.6;

1> if the IE "UE Timers and constants in connected mode" is present:

2> store the values of the IE "UE Timers and constants in connected mode" in the variable TIMERS_AND_CONSTANTS, replacing any previously stored value for each timer and constant; and

2> for each updated timer value:

3> start using the new value next time the timer is started;

NOTE: If a new value of timer T305 is included in the IE "UE Timers and constants in connected mode", and the old value of timer T305 is "infinity", the UE will not use the new value of the timer T305 until the next cell reselection.

2> for each updated constant value:

3> start using the new value directly;

1> if the IE "CN domain specific DRX cycle length coefficient" is present:

2> store the value of the IE "CN domain specific DRX cycle length coefficient" for that CN domain, replacing any previously stored value; and

2> use the value to determine the connected mode paging occasions according to [4].

1> set the IE "RRC transaction identifier" in the UTRAN MOBILITY INFORMATION CONFIRM message to the value of "RRC transaction identifier" in the entry for the UTRAN MOBILITY INFORMATION message in the table "Accepted transactions" in the variable TRANSACTIONS; and

1> clear that entry;

1> if the UTRAN MOBILITY INFORMATION message contained the IE "Ciphering mode info" or contained the IE "Integrity protection mode info":

2> set the IE "Status" in the variable SECURITY_MODIFICATION for all the CN domains in the variable SECURITY_MODIFICATION to "Affected".

1> if the variable PDCP_SN_INFO is non-empty:

2> include the IE "RB with PDCP information list" in the UTRAN MOBILITY INFORMATION CONFIRM message and set it to the value of the variable PDCP_SN_INFO.

1> if the received UTRAN MOBILITY INFORMATION message included the IE "Downlink counter synchronisation info":

2> if the variable PDCP_SN_INFO is empty:

3> configure the corresponding RLC entity for all AM and UM radio bearers and AM and UM signalling radio bearers except RB2 to "stop".

2> else:

3> configure the RLC entity for signalling radio bearers RB1, RB3 and RB4 to "stop";

3> configure the RLC entity for UM and AM radio bearers for which the IE "PDCP SN Info" is not included to "stop".

2> re-establish the RLC entity for RB2;

2> for the downlink and the uplink, apply the ciphering configuration as follows:

   3> if the received re-configuration message included the IE "Ciphering Mode Info":

    4> use the ciphering configuration in the received message when transmitting the response message.

   3> if the ciphering configuration for RB2 from a previously received SECURITY MODE COMMAND has not yet been applied because the activation times not having been reached:

    4> if the previous SECURITY MODE COMMAND was received due to new keys being received:

     5> consider the new ciphering configuration to include the received new keys;

     5> initialise the HFN component of the uplink COUNT-C and downlink COUNT-C of SRB2 as indicated in subclause 8.1.12.3.1.

    4> if the ciphering configuration for RB2 from a previously received SECURITY MODE COMMAND has not yet been applied because of the corresponding activation times not having been reached and the previous SECURITY MODE COMMAND caused a change in LATEST_CONFIGURED_CN_DOMAIN:

     5> consider the new ciphering configuration to include the keys associated with the LATEST_CONFIGURED_CN_DOMAIN;

     5> initialise the HFN component of the uplink COUNT-C and downlink COUNT-C of SRB2 to the most recently transmitted IE "START list" or IE "START" for the LATEST_CONFIGURED_CN_DOMAIN at the reception of the previous SECURITY MODE COMMAND.

    4> apply the new ciphering configuration immediately following RLC re-establishment.

   3> else:

    4> continue using the current ciphering configuration.

  2> set the new uplink and downlink HFN component of COUNT-C of RB2 to MAX(uplink HFN component of COUNT-C of RB2, downlink HFN component of COUNT-C of RB2);

  2> increment by one the downlink and uplink values of the HFN component of COUNT-C for RB2;

  2> calculate the START value according to subclause 8.5.9;

  2> include the calculated START values for each CN domain in the IE "START list" in the IE "Uplink counter synchronisation info" in the UTRAN MOBILITY INFORMATION CONFIRM message.

 1> transmit a UTRAN MOBILITY INFORMATION CONFIRM message on the uplink DCCH using AM RLC;

 1> if the IE "Integrity protection mode info" was present in the UTRAN MOBILITY INFORMATION message:

  2> start applying the new integrity protection configuration in the uplink for signalling radio bearer RB2 from and including the transmitted UTRAN MOBILITY INFORMATION CONFIRM message.

 1> if the IE "Downlink counter synchronisation info" was included in the received UTRAN MOBILITY INFORMATION message:

  2> when RLC has confirmed the successful transmission of the response message:

   3> if the variable PDCP_SN_INFO is empty:

    4> configure the RLC entity for all AM and UM radio bearers and AM and UM signalling radio bearers except RB2 to "continue".

   3> else:

    4> configure the RLC entity for signalling radio bearers RB1, RB3 and RB4 to "continue";

    4> configure the RLC entity for UM and AM radio bearers for which the IE "PDCP SN Info" is not included to "continue".

3> re-establish all AM and UM RLC entities with RB identities larger than 4 and set the first 20 bits of all the HFN component of the respective COUNT-C values to the START value included in the response message for the corresponding CN domain;

3> re-establish the RLC entities with RB identities 1, 3 and 4 and set the first 20 bits of all the HFN component of the respective COUNT-C values to the START value included in the response message for the CN domain stored in the variable LATEST_CONFIGURED_CN_DOMAIN;

3> set the remaining bits of the HFN component of the COUNT-C values of all UM RLC entities to zero;

3> if the IE "PDCP context relocation info" is not present:

4> re-initialise the PDCP header compression entities of each radio bearer in the variable ESTABLISHED_RABS as specified in [36].

3> if the IE "PDCP context relocation info" is present:

4> perform the actions as specified in subclause 8.6.4.13.

1> if the variable PDCP_SN_INFO is empty; and

2> if the UTRAN MOBILITY INFORMATION message contained the IE "Ciphering mode info":

3> when RLC has confirmed the successful transmission of the UTRAN MOBILITY INFORMATION CONFIRM message:

4> perform the actions below:

2> if the UTRAN MOBILITY INFORMATION message did not contain the IE "Ciphering mode info":

3> when RLC has been requested to transmit the UTRAN MOBILITY INFORMATION CONFIRM message:

4> perform the actions below.

1> if the variable PDCP_SN_INFO is non-empty:

2> when RLC has confirmed the successful transmission of the UTRAN MOBILITY INFORMATION CONFIRM message:

3> for each radio bearer in the variable PDCP_SN_INFO:

4> if the IE "RB started" in the variable ESTABLISHED_RABS is set to "started":

5> configure the RLC entity for that radio bearer to "continue".

3> clear the variable PDCP_SN_INFO; and

3> perform the actions below.

The UE shall:

1> if the UTRAN MOBILITY INFORMATION message contained the IE "Ciphering mode info":

2> resume data transmission on any suspended radio bearer and signalling radio bearer mapped on RLC-AM or RLC-UM;

2> set the IE "Reconfiguration" in the variable CIPHERING_STATUS to FALSE; and

2> clear the variable RB_UPLINK_CIPHERING_ACTIVATION_TIME_INFO.

1> if the UTRAN MOBILITY INFORMATION message contained the IE "Integrity protection mode info":

2> allow the transmission of RRC messages on all signalling radio bearers with any RRC SN;

2> set the IE "Reconfiguration" in the variable INTEGRITY_PROTECTION_INFO to FALSE; and

2> clear the variable INTEGRITY_PROTECTION_ACTIVATION_INFO.

3> if the UTRAN MOBILITY INFORMATION message contained the IE "PLMN Identity":

4> replace the PLMN identity in CN information info with this PLMN identity, even if CN information info do not contain any PLMN identity.

1> clear the variable SECURITY_MODIFICATION.

The procedure ends.

NOTE: In a cell broadcasting multiple PLMN identities, the IE PLMN identity in UTRAN MOBILITY INFORMATION should contain the PLMN identity signalled in RANAP RELOCATION REQUEST at handovers.

------------ Next Modified Section ------------

8.6.1.2 CN information info

If the IE "CN information info" is present in a message, the UE shall:

> 1> if IE "Primary PLMN Identity" is present:

>> 2> forward the content of the IE "Primary PLMN identity" to upper layers.

> 1> else:

>> 2> if IE "PLMN Identity" is present:

>>> 3> forward the content of the IE "PLMN identity" to upper layers.

> 1> if present, forward the content of the IE "CN common GSM-MAP NAS system information" to upper layers;

> 1> if the IE "CN domain related information" is present:

>> 2> forward each occurrence of the IE "CN domain specific GSM-MAP NAS system info" together with the IE "CN domain identity" to upper layers.

>> 2> if an IE "CN domain specific GSM-MAP NAS system info" is not present for a particular CN domain:

>>> 3> indicate to upper layers that no CN system information is available for that CN domain.

>>> If the "PLMN identity" is present, the UE shall consider this PLMN to be the selected PLMN (see [4]).

> NOTE: If UTRAN at SRNS relocation includes and sets the IE "Primary PLMN identity" to the PLMN identity signalled in RANAP RELOCATION REQUEST [x], UTRAN should also set the IE "PLMN identity" to the PLMN identity in the IE "PLMN Identity" of the Master Information Block transmitted in the cell(s) used by UE after completed SRNS relocation. If the "PLMN identity" is to be present in an IE "CN information info" sent in a UTRAN MOBILITY INFORMATION to a UE in a cell broadcasting IE "Multiple PLMN List", it should contain the PLMN identity in the IE "PLMN Identity" of the MIB.

<mark>----------- Next Modified Section -----------</mark>

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 → UE

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
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	The UTRAN should not include this IE unless it is performing an SRNS relocation	
Ciphering mode info	OP		Ciphering mode info 10.3.3.5	The UTRAN should not include this IE unless it is performing an SRNS relocation and a change in ciphering algorithm	
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	OP		DSCH-RNTI 10.3.3.9a		
New H-RNTI	OP		H-RNTI 10.3.3.14a		REL-5
New E-RNTI	OP		E-RNTI 10.3.3.10a		REL-6
RRC State Indicator	MP		RRC State Indicator 10.3.3.35a		
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		
~~PLMN Identity~~	~~OP~~		~~PLMN Identity 10.3.1.11~~	~~If present, this IE replaces the PLMN in CN Information info.~~	~~REL-6~~
UTRAN mobility information elements					

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
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>			
>>RB with PDCP information	MP		RB with PDCP information 10.3.4.22	This IE is needed for each RB having PDCP in the case of lossless SRNS relocation	
	OP				REL-5
>>PDCP context relocation info	OP		PDCP context relocation info 10.3.4.1a	This IE is needed for each RB having PDCP and performing PDCP context relocation	REL-5
PhyCH information elements					
Frequency info	OP		Frequency info 10.3.6.36		
Uplink radio resources					
Maximum allowed UL TX power	MD		Maximum allowed UL TX power 10.3.6.39	Default value is the existing value of the maximum allowed 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		
>CPCH set ID			CPCH set ID 10.3.5.3		
E-DCH Info	OP		E-DCH Info 10.3.6.97		REL-6
Downlink radio resources					
CHOICE *mode*	MP				
>FDD					
>>Downlink PDSCH information	OP		Downlink PDSCH information 10.3.6.30		
>TDD				(no data)	
Downlink HS-PDSCH Information	OP		Downlink HS_PDSCH Information 10.3.6.23a		REL-5
Downlink information common for all radio links	OP		Downlink information common for all radio links 10.3.6.24		
Downlink information per radio link list	OP	1 to <maxRL>		Send downlink information for each radio link	
>Downlink information for each radio link	MP		Downlink information for each radio link		

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
			10.3.6.27		
MBMS FLC applicability information	MP		MBMS FLC applicability information 10.3.9a.6		REL-6

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. This message is also used to perform a handover from GERAN *Iu mode* to UTRAN.

RLC-SAP: AM or UM or sent through GERAN *Iu mode*

Logical channel: DCCH or sent through GERAN *Iu mode*

Direction: UTRAN → UE

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
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	The UTRAN should not include this IE unless it is performing an SRNS relocation or a handover from GERAN *Iu mode*	
Ciphering mode info	OP		Ciphering mode info 10.3.3.5	The UTRAN should not include this IE unless it is performing either an SRNS relocation or a handover from GERAN *Iu mode* and a change in ciphering algorithm	
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	OP		DSCH-RNTI 10.3.3.9a		
New H-RNTI	OP		H-RNTI 10.3.3.14a		REL-5
New E-RNTI	OP		E-RNTI 10.3.3.10a		REL-6
RRC State Indicator	MP		RRC State Indicator 10.3.3.35a		
UTRAN DRX cycle length coefficient	OP		UTRAN DRX cycle length coefficient 10.3.3.49		
CN information elements					
CN Information info	OP		CN		

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
			Information info 10.3.1.3		
~~PLMN Identity~~	~~OP~~		~~PLMN Identity 10.3.1.11~~	~~If present, this IE replaces the PLMN in CN Information info.~~	~~REL-6~~
UTRAN mobility information elements					
URA identity	OP		URA identity 10.3.2.6		
CHOICE specification mode	MP				REL-5
>Complete specification					
RB information elements					
>>RAB information to reconfigure list	OP	1 to < maxRABsetup >			
>>>RAB information to reconfigure	MP		RAB information to reconfigure 10.3.4.11		
>>RB information to reconfigure list	MP	1to <maxRB>		Although this IE is not always required, need is MP to align with ASN.1	
	OP				REL-4
>>>RB information to reconfigure	MP		RB information to reconfigure 10.3.4.18		
>>RB information to be affected list	OP	1 to <maxRB>			
>>>RB information to be affected	MP		RB information to be affected 10.3.4.17		
>>RB with PDCP context relocation info list	OP	1 to <maxRBall RABs>		This IE is needed for each RB having PDCP and performing PDCP context relocation	REL-5
>>>PDCP context relocation info	MP		PDCP context relocation info 10.3.4.1a		REL-5
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 >			

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
>>>Deleted UL TrCH information	MP		Deleted UL TrCH information 10.3.5.5		
>>Added or Reconfigured TrCH information list	OP	1 to <maxTrCH>			
>>>Added or Reconfigured UL TrCH information	MP		Added or Reconfigured UL TrCH information 10.3.5.2		
>>CHOICE *mode*	OP				
>>>FDD					
>>>>CPCH set ID	OP		CPCH set ID 10.3.5.3		
>>>>Added or Reconfigured TrCH information for DRAC list	OP	1 to <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>			
>>>Deleted DL TrCH information	MP		Deleted DL TrCH information 10.3.5.4		
>>Added or Reconfigured TrCH information list	OP	1 to <maxTrCH>			
>>>Added or Reconfigured DL TrCH information	MP		Added or Reconfigured DL TrCH information 10.3.5.1		

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
>Preconfiguration					REL-5
>>CHOICE *Preconfiguration mode*	MP			This value only applies in case the message is sent through GERAN *Iu mode*	
>>>Predefined configuration identity	MP		Predefined configuration identity 10.3.4.5		
>>>Default configuration					
>>>>Default configuration mode	MP		Enumerated (FDD, TDD)	Indicates whether the FDD or TDD version of the default configuration shall be used	
>>>>Default configuration identity	MP		Default configuration identity 10.3.4.0		
PhyCH information elements					
Frequency info	OP		Frequency info 10.3.6.36		
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		
E-DCH Info	OP		E-DCH Info 10.3.6.97		REL-6
Downlink radio resources					
CHOICE *mode*	MP				
>FDD					
>>Downlink PDSCH information	OP		Downlink PDSCH information 10.3.6.30		
>TDD				(no data)	
Downlink HS-PDSCH Information	OP		Downlink HS-PDSCH Information 10.3.6.23a		REL-5
Downlink information common for all radio links	OP		Downlink information common for all radio links 10.3.6.24		
Downlink information per radio link list	MP	1 to <maxRL>		Although this IE is not always required, need is MP to align with ASN.1	
	OP				REL-4
>Downlink information for each radio link	MP		Downlink information for each		

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
			radio link 10.3.6.27		
MBMS FLC applicability information	MP		MBMS FLC applicability information 10.3.9a.6		REL-6

----------- Next Modified Section ------------

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 → UE

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
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	The UTRAN should not include this IE unless it is performing an SRNS relocation.	
Ciphering mode info	OP		Ciphering mode info 10.3.3.5	The UTRAN should not include this IE unless it is performing an SRNS relocation and a change in ciphering algorithm.	
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	OP		DSCH-RNTI 10.3.3.9a		
New H-RNTI	OP		H-RNTI 10.3.3.14a		REL-5
New E-RNTI	OP		E-RNTI 10.3.3.10a		REL-6
RRC State Indicator	MP		RRC State Indicator 10.3.3.35a		
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		
~~PLMN Identity~~	~~OP~~		~~PLMN Identity 10.3.1.11~~	~~If present, this IE replaces the PLMN in CN Information info.~~	~~REL-6~~
Signalling Connection release indication	OP		CN domain identity 10.3.1.1		
UTRAN mobility information					

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
elements					
URA identity	OP		URA identity 10.3.2.6		
RB Information Elements					
RAB information to reconfigure list	OP	1 to < maxRABsetup >			
>RAB information to reconfigure	MP		RAB information to reconfigure 10.3.4.11		
RB information to release list	MP	1 to <maxRB>			
>RB information to release	MP		RB information to release 10.3.4.19		
RB information to be affected list	OP	1 to <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 <maxRBallRABs>			
>>RB with PDCP information	MP		RB with PDCP information 10.3.4.22	This IE is needed for each RB having PDCP in the case of lossless SRNS relocation	
	OP				REL-5
>RB with PDCP context relocation info list	OP	1 to <maxRBallRABs>			REL-5
>>PDCP context relocation info	MP		PDCP context relocation info 10.3.4.1a	This IE is needed for each RB having PDCP and performing PDCP context relocation	REL-5
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>			
>Deleted UL TrCH information	MP		Deleted UL TrCH information 10.3.5.5		
Added or Reconfigured TrCH information list	OP	1 to <maxTrCH>			
>Added or Reconfigured UL TrCH information	MP		Added or Reconfigured UL TrCH		

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
			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>			
>>>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>			
>Deleted DL TrCH information	MP		Deleted DL TrCH information 10.3.5.4		
Added or Reconfigured TrCH information list	OP	1 to <maxTrCH>			
>Added or Reconfigured DL TrCH information	MP		Added or Reconfigured DL TrCH information 10.3.5.1		
PhyCH information elements					
Frequency info	OP		Frequency info 10.3.6.36		
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		
E-DCH Info	OP		E-DCH Info 10.3.6.97		REL-6
Downlink radio resources					
CHOICE *mode*	MP				
>FDD					
>>Downlink PDSCH information	OP		Downlink PDSCH information 10.3.6.30		
>TDD				(no data)	
Downlink HS-PDSCH Information	OP		Downlink HS-PDSCH Information		REL-5

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
			10.3.6.23a		
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>		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		
MBMS FLC applicability information	MP		MBMS FLC applicability information 10.3.9a.6		REL-6
MBMS RB list released to change transfer mode	OP	1 to \<maxRB>			REL-6
>RB information to release	MP		RB information to release 10.3.4.19		REL-6

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 → UE

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
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	The UTRAN should not include this IE unless it is performing an SRNS relocation	
Ciphering mode info	OP		Ciphering mode info 10.3.3.5	The UTRAN should not include this IE unless it is performing an SRNS relocation and a change in ciphering algorithm	
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	OP		DSCH-RNTI 10.3.3.9a		
New H-RNTI	OP		H-RNTI 10.3.3.14a		REL-5
New E-RNTI	OP		E-RNTI 10.3.3.10a		REL-6
RRC State Indicator	MP		RRC State Indicator 10.3.3.35a		
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		
~~PLMN Identity~~	~~OP~~		~~PLMN Identity 10.3.1.11~~	~~If present, this IE replaces the PLMN in CN Information info.~~	~~REL-6~~
UTRAN mobility information					

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
elements					
URA identity	OP		URA identity 10.3.2.6		
RB Information Elements					
Signalling RB information to setup list	OP	1 to <maxSRBsetup>		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 <maxRABsetup>		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>			
>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 <maxRBallRABs>			
>>RB with PDCP information	MP		RB with PDCP information 10.3.4.22	This IE is needed for each RB having PDCP in the case of lossless SRNS relocation	
	OP				REL-5
>>PDCP context relocation info	OP		PDCP context relocation info 10.3.4.1a	This IE is needed for each RB having PDCP and performing PDCP context relocation	REL-5
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>			
>Deleted UL TrCH information	MP		Deleted UL TrCH information 10.3.5.5		
Added or Reconfigured TrCH information list	OP	1 to <maxTrCH>			
>Added or Reconfigured UL TrCH information	MP		Added or Reconfigured UL TrCH		

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
			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>			
>>>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>			
>Deleted DL TrCH information	MP		Deleted DL TrCH information 10.3.5.4		
Added or Reconfigured TrCH information list	OP	1 to <maxTrCH>			
>Added or Reconfigured DL TrCH information	MP		Added or Reconfigured DL TrCH information 10.3.5.1		
PhyCH information elements					
Frequency info	OP		Frequency info 10.3.6.36		
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		
E-DCH Info	OP		E-DCH Info 10.3.6.97		REL-6
Downlink radio resources					
CHOICE *mode*	MP				
>FDD					
>>Downlink PDSCH information	OP		Downlink PDSCH information 10.3.6.30		
>TDD				(no data)	
Downlink HS-PDSCH Information	OP		Downlink HS-PDSCH Information		REL-5

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
			10.3.6.23a		
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>		Send downlink information for each radio link	
>Downlink information for each radio link	MP		Downlink information for each radio link 10.3.6.27		
MBMS FLC applicability information	MP		MBMS FLC applicability information 10.3.9a.6		REL-6

----------- Next Modified Section ------------

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 → UE

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
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	The UTRAN should not include this IE unless it is performing an SRNS relocation	
Ciphering mode info	OP		Ciphering mode info 10.3.3.5	The UTRAN should not include this IE unless it is performing an SRNS relocation and a change in ciphering algorithm	
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	OP		DSCH-RNTI 10.3.3.9a		
New H-RNTI	OP		H-RNTI 10.3.3.14a		REL-5
New E-RNTI	OP		E-RNTI 10.3.3.10a		REL-6
RRC State Indicator	MP		RRC State Indicator 10.3.3.35a		
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		
PLMN Identity	OP		PLMN Identity	If present, this IE replaces the	REL-6

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
			10.3.1.11	PLMN in CN Information info.	
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 <maxRBallRABs>			
>>RB with PDCP information	MP		RB with PDCP information 10.3.4.22	This IE is needed for each RB having PDCP in the case of lossless SRNS relocation	
	OP				REL-5
>>PDCP context relocation info	OP		PDCP context relocation info 10.3.4.1a	This IE is needed for each RB having PDCP and performing PDCP context relocation	REL-5
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>			
>Added or Reconfigured UL TrCH information	MP		Added or Reconfigured UL TrCH information 10.3.5.2		
CHOICE *mode*	OP				
>FDD					
>>CPCH set ID	OP		CPCH set ID 10.3.5.3		
>>Added or Reconfigured TrCH information for DRAC list	OP	1 to <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>			

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
>Added or Reconfigured DL TrCH information	MP		Added or Reconfigured DL TrCH information 10.3.5.1		
PhyCH information elements					
Frequency info	OP		Frequency info 10.3.6.36		
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		
E-DCH Info	OP		E-DCH Info 10.3.6.97		REL-6
Downlink radio resources					
CHOICE *mode*	MP				
>FDD					
>>Downlink PDSCH information	OP		Downlink PDSCH information 10.3.6.30		
>TDD				(no data)	
Downlink HS-PDSCH Information	OP		Downlink HS-PDSCH Information 10.3.6.23a		REL-5
Downlink information common for all radio links	OP		Downlink information common for all radio links 10.3.6.24		
Downlink information per radio link list	OP	1 to <maxRL>		Send downlink information for each radio link	
>Downlink information for each radio link	MP		Downlink information for each radio link 10.3.6.27		
MBMS FLC applicability information	MP		MBMS FLC applicability information 10.3.9a.6		REL-6

10.2.62 UTRAN MOBILITY INFORMATION

This message is used by UTRAN to allocate a new RNTI and to convey other UTRAN mobility related information to a UE.

> RLC-SAP: AM or UM

> Logical channel: DCCH

> Direction: UTRAN→UE

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
Message Type	MP		Message Type		
UE Information Elements					
Integrity check info	CH		Integrity check info 10.3.3.16		
RRC transaction identifier	MP		RRC transaction identifier 10.3.3.36		
Integrity protection mode info	OP		Integrity protection mode info 10.3.3.19	The UTRAN should not include this IE unless it is performing an SRNS relocation	
Ciphering mode info	OP		Ciphering mode info 10.3.3.5	The UTRAN should not include this IE unless it is performing an SRNS relocation and a change in ciphering algorithm	
New U-RNTI	OP		U-RNTI 10.3.3.47		
New C-RNTI	OP		C-RNTI 10.3.3.8		
UE Timers and constants in connected mode	OP		UE Timers and constants in connected mode 10.3.3.43		
CN Information Elements					
CN Information info	OP		CN Information info full 10.3.1.3a		
~~PLMN Identity~~	~~OP~~		~~PLMN Identity 10.3.1.11~~	~~If present, this IE replaces the PLMN in CN Information info.~~	~~REL-6~~
UTRAN 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>			

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
>>RB with PDCP information	MP		RB with PDCP information 10.3.4.22	This IE is needed for each RB having PDCP in the case of lossless SRNS relocation	
	OP				REL-5
>>PDCP context relocation info	OP		PDCP context relocation info 10.3.4.1a	This IE is needed for each RB having PDCP and performing PDCP context relocation	REL-5

10.3.1.3   CN Information info

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
PLMN identity	OP		PLMN identity 10.3.1.11		
CN common GSM-MAP NAS system information	OP		NAS system information (GSM-MAP) 10.3.1.9		
CN domain related information	OP	1 to <maxCNdomains>			
>CN domain identity	MP		CN domain identity 10.3.1.1		
>CN domain specific GSM-MAP NAS system info	MP		NAS system information (GSM-MAP) 10.3.1.9		
Primary PLMN identity	OP		PLMN identity 10.3.1.11		REL-6

10.3.1.3a   CN Information info full

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
PLMN identity	OP		PLMN identity 10.3.1.11		
CN common GSM-MAP NAS system information	OP		NAS system information (GSM-MAP) 10.3.1.9		
CN domain related information	OP	1 to <maxCNdomains>			
>CN domain identity	MP		CN domain identity 10.3.1.1		
>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		
Primary PLMN identity	OP		PLMN identity 10.3.1.11		REL-6

11.2   PDU definitions

```
                                    :: Modified PDU ::

-- **************************************************
--
-- PHYSICAL CHANNEL RECONFIGURATION
--
-- **************************************************


PhysicalChannelReconfiguration-v6xyext-IEs ::= SEQUENCE {
    -- Core network IEs
        primary-plmn-Identity           ————————PLMN-Identity                 OPTIONAL,
    -- Physical channel IEs
        harq-Preamble-Mode              HARQ-Preamble-Mode          OPTIONAL,
    -- MBMS IEs
        mbms-FLCApplicabilityInfo       MBMS-FLCApplicabilityInfo-r6
}


                                    :: Modified PDU ::


-- **************************************************
--
-- RADIO BEARER RECONFIGURATION
--
-- **************************************************


RadioBearerReconfiguration-v6xyext-IEs ::= SEQUENCE {
    -- Core network IEs
        primary-plmn-Identity           ————————PLMN-Identity                 OPTIONAL,
    -- Physical channel IEs
        harq-Preamble-Mode              HARQ-Preamble-Mode          OPTIONAL,
    -- MBMS IEs
        mbms-FLCApplicabilityInfo       MBMS-FLCApplicabilityInfo-r6
}


                                    :: Modified PDU ::

-- **************************************************
--
-- RADIO BEARER RELEASE
--
-- **************************************************


RadioBearerRelease-v6xyext-IEs ::= SEQUENCE {
    -- Core network IEs
        primary-plmn-Identity           ————————PLMN-Identity                 OPTIONAL,
    -- Physical channel IEs
        harq-Preamble-Mode              HARQ-Preamble-Mode          OPTIONAL,
    -- MBMS IEs
        mbms-FLCApplicabilityInfo       MBMS-FLCApplicabilityInfo-r6,
        mbms-RB-ListReleasedToChangeTransferMode
                                        RB-InformationReleaseList       OPTIONAL
}


                                    :: Modified PDU ::

-- **************************************************
--
-- RADIO BEARER SETUP
--
-- **************************************************
```

```
RadioBearerSetup-v6xyext-IEs ::= SEQUENCE {
    -- Core network IEs
        primary-plmn-Identity          ————PLMN-Identity                    OPTIONAL,
    -- Physical channel IEs
        harq-Preamble-Mode             HARQ-Preamble-Mode          OPTIONAL,
    -- Radio bearer IEs
        rab-InformationSetupList       RAB-InformationSetupList-r6-ext     OPTIONAL,
    -- MBMS IEs
        mbms-FLCApplicabilityInfo      MBMS-FLCApplicabilityInfo-r6
}
```

:: Modified PDU ::

```
-- **************************************************
--
-- TRANSPORT CHANNEL RECONFIGURATION
--
-- **************************************************



TransportChannelReconfiguration-v6xyext-IEs ::= SEQUENCE {
    -- Core network IEs
        primary-plmn-Identity          ————PLMN-Identity                    OPTIONAL,
    -- Physical channel IEs
        harq-Preamble-Mode             HARQ-Preamble-Mode          OPTIONAL,
    -- MBMS IEs
        mbms-FLCApplicabilityInfo      MBMS-FLCApplicabilityInfo-r6
}
```

:: Modified PDU ::

```
-- **************************************************
--
-- UTRAN MOBILITY INFORMATION
--
-- **************************************************



UtranMobilityInformation-v6xyext-IEs ::= SEQUENCE {
    -- Core network IEs
        primary-plmn-Identity          ————PLMN-Identity                        OPTIONAL
}
```

:: Modified PDU ::

```
-- **************************************************
--
-- ACTIVE SET UPDATE (FDD only)
--
-- **************************************************

ActiveSetUpdate ::= CHOICE {
    r3                              SEQUENCE {
        activeSetUpdate-r3          ActiveSetUpdate-r3-IEs,
        laterNonCriticalExtensions  SEQUENCE {
            -- Container for additional R99 extensions
            activeSetUpdate-r3-add-ext   BIT STRING     OPTIONAL,
            v4b0NonCriticalExtensions    SEQUENCE {
                activeSetUpdate-v4b0ext    ActiveSetUpdate-v4b0ext-IEs,
                v590NonCriticalExtensions      SEQUENCE {
                    activeSetUpdate-v590ext        ActiveSetUpdate-v590ext-IEs,
                    v6xyNonCriticalExtensions      SEQUENCE {
                        activeSetUpdate-v6xyext        ActiveSetUpdate-v6xyext-IEs,
                        nonCriticalExtensions          SEQUENCE {} OPTIONAL
                    } OPTIONAL
                } OPTIONAL
            } OPTIONAL
```

```
        } OPTIONAL
    },
    later-than-r3                       SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

ActiveSetUpdate-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        -- dummy and dummy2 are not used in this version of the specification, they should
        -- not be sent and if received they should be ignored.
        dummy                           IntegrityProtectionModeInfo     OPTIONAL,
        dummy2                          CipheringModeInfo               OPTIONAL,
        activationTime                  ActivationTime                  OPTIONAL,
        newU-RNTI                       U-RNTI                          OPTIONAL,
    -- Core network IEs
        cn-InformationInfo              CN-InformationInfo              OPTIONAL,
    -- Radio bearer IEs
        -- dummy3 is not used in this version of the specification, it should
        -- not be sent and if received it should be ignored.
        dummy3                          DL-CounterSynchronisationInfo   OPTIONAL,
    -- Physical channel IEs
        maxAllowedUL-TX-Power           MaxAllowedUL-TX-Power           OPTIONAL,
        rl-AdditionInformationList      RL-AdditionInformationList      OPTIONAL,
        rl-RemovalInformationList       RL-RemovalInformationList       OPTIONAL,
        tx-DiversityMode                TX-DiversityMode                OPTIONAL,
        ssdt-Information                SSDT-Information                OPTIONAL
}

ActiveSetUpdate-v4b0ext-IEs ::= SEQUENCE {
    -- Physical channel IEs
        -- ssdt-UL extends SSDT-Information. FDD only.
        ssdt-UL-r4                          SSDT-UL                     OPTIONAL,
        -- The order of the RLs in IE cell-id-PerRL-List is the same as
        -- in IE RL-AdditionInformationList included in this message
        cell-id-PerRL-List                  CellIdentity-PerRL-List     OPTIONAL
}

ActiveSetUpdate-v590ext-IEs ::= SEQUENCE {
    -- Physical channel IEs
        dpc-Mode                        DPC-Mode,
        dl-TPC-PowerOffsetPerRL-List    DL-TPC-PowerOffsetPerRL-List    OPTIONAL
}

ActiveSetUpdate-v6xyext-IEs ::= SEQUENCE {
    -- Core network IEs
        primary-plmn-Identity           PLMN-Identity                   OPTIONAL
}
```

```
                                    :: Modified PDU ::
```

```
-- **************************************************
--
-- CELL UPDATE CONFIRM
--
-- **************************************************

CellUpdateConfirm ::= CHOICE {
    r3                              SEQUENCE {
        cellUpdateConfirm-r3            CellUpdateConfirm-r3-IEs,
        v3a0NonCriticalExtensions       SEQUENCE {
            cellUpdateConfirm-v3a0ext       CellUpdateConfirm-v3a0ext,
            laterNonCriticalExtensions      SEQUENCE {
                -- Container for additional R99 extensions
                cellUpdateConfirm-r3-add-ext    BIT STRING  OPTIONAL,
                v4b0NonCriticalExtensions       SEQUENCE {
                    cellUpdateConfirm-v4b0ext       CellUpdateConfirm-v4b0ext-IEs,
                    v590NonCriticalExtenstions      SEQUENCE {
                        cellUpdateConfirm-v590ext       CellUpdateConfirm-v590ext-IEs,
                        v6xyNonCriticalExtensions       SEQUENCE {
                            cellUpdateConfirm-v6xyext       CellUpdateConfirm-v6xyext-IEs,
                            nonCriticalExtensions           SEQUENCE {} OPTIONAL
                        } OPTIONAL
                    } OPTIONAL
```

```
            }           OPTIONAL
        }           OPTIONAL
    }           OPTIONAL
},
later-than-r3                   SEQUENCE {
    rrc-TransactionIdentifier       RRC-TransactionIdentifier,
    criticalExtensions              CHOICE {
        r4                              SEQUENCE {
            cellUpdateConfirm-r4            CellUpdateConfirm-r4-IEs,
            v4d0NonCriticalExtensions       SEQUENCE {
                -- Container for adding non critical extensions after freezing REL-5
                cellUpdateConfirm-r4-add-ext    BIT STRING      OPTIONAL,
                v590NonCriticalExtenstions      SEQUENCE {
                    cellUpdateConfirm-v590ext       CellUpdateConfirm-v590ext-IEs,
                    v6xyNonCriticalExtensions       SEQUENCE {
                        cellUpdateConfirm-v6xyext       CellUpdateConfirm-v6xyext-IEs,
                        nonCriticalExtensions           SEQUENCE {}     OPTIONAL
                    } OPTIONAL
                } OPTIONAL
            } OPTIONAL
        },
        criticalExtensions          CHOICE {
            r5                          SEQUENCE {
                cellUpdateConfirm-r5            CellUpdateConfirm-r5-IEs,
                -- Container for adding non critical extensions after freezing REL-6
                cellUpdateConfirm-r5-add-ext    BIT STRING      OPTIONAL,
                v6xyNonCriticalExtensions       SEQUENCE {
                    cellUpdateConfirm-v6xyext       CellUpdateConfirm-v6xyext-IEs,
                    nonCriticalExtensions           SEQUENCE {}     OPTIONAL
                } OPTIONAL
            },
            criticalExtensions              SEQUENCE {}
        }
    }
}
}

CellUpdateConfirm-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,
    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,
    modeSpecificTransChInfo         CHOICE {
        fdd                             SEQUENCE {
            cpch-SetID                      CPCH-SetID                      OPTIONAL,
            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 {
        fdd                             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-v4b0ext-IEs ::= SEQUENCE {
    -- Physical channel IEs
        -- ssdt-UL extends SSDT-Information, which is included in
        -- DL-CommonInformation. FDD only.
        ssdt-UL-r4                       SSDT-UL                        OPTIONAL,
        -- The order of the RLs in IE cell-id-PerRL-List is the same as
        -- in IE DL-InformationPerRL-List included in this message
        cell-id-PerRL-List               CellIdentity-PerRL-List        OPTIONAL
}

CellUpdateConfirm-v590ext-IEs ::= SEQUENCE {
    -- Physical channel IEs
        dl-TPC-PowerOffsetPerRL-List    DL-TPC-PowerOffsetPerRL-List    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,
        new-DSCH-RNTI                   DSCH-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-r4  OPTIONAL,
        rb-InformationAffectedList      RB-InformationAffectedList     OPTIONAL,
        dl-CounterSynchronisationInfo   DL-CounterSynchronisationInfo  OPTIONAL,
    -- Transport channel IEs
        ul-CommonTransChInfo            UL-CommonTransChInfo-r4        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-r4 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
}

CellUpdateConfirm-r5-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,
            new-DSCH-RNTI                  DSCH-RNTI                           OPTIONAL,
            new-H-RNTI                     H-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-r5       OPTIONAL,
            rb-InformationAffectedList     RB-InformationAffectedList-r5       OPTIONAL,
            dl-CounterSynchronisationInfo  DL-CounterSynchronisationInfo-r5    OPTIONAL,
        -- Transport channel IEs
            ul-CommonTransChInfo           UL-CommonTransChInfo-r4             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-r5        OPTIONAL,
            dl-AddReconfTransChInfoList    DL-AddReconfTransChInfoList-r5      OPTIONAL,
        -- Physical channel IEs
            frequencyInfo                  FrequencyInfo                       OPTIONAL,
            maxAllowedUL-TX-Power          MaxAllowedUL-TX-Power               OPTIONAL,
            ul-ChannelRequirement          UL-ChannelRequirement-r5            OPTIONAL,
            modeSpecificPhysChInfo         CHOICE {
                fdd                            SEQUENCE {
                    dl-PDSCH-Information            DL-PDSCH-Information         OPTIONAL
                },
                tdd                            NULL
            },
            dl-HSPDSCH-Information          DL-HSPDSCH-Information               OPTIONAL,
            dl-CommonInformation           DL-CommonInformation-r5             OPTIONAL,
            dl-InformationPerRL-List       DL-InformationPerRL-List-r5         OPTIONAL
}

CellUpdateConfirm-v6xyext-IEs ::= SEQUENCE {
    -- Core network IEs
        primary-plmn-Identity          PLMN-Identity                            OPTIONAL,
    -- Physical channel IEs
        harq-Preamble-Mode             HARQ-Preamble-Mode                      OPTIONAL,
    -- MBMS IEs
        mbms-FLCApplicabilityInfo      MBMS-FLCApplicabilityInfo-r6
}

-- **************************************************
--
-- CELL UPDATE CONFIRM for CCCH
--
-- **************************************************

CellUpdateConfirm-CCCH ::= CHOICE {
    r3                             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,
            laterNonCriticalExtensions     SEQUENCE {
                -- Container for additional R99 extensions
                cellUpdateConfirm-CCCH-r3-add-ext        BIT STRING  OPTIONAL,
                v4b0NonCriticalExtensions      SEQUENCE {
                    cellUpdateConfirm-v4b0ext      CellUpdateConfirm-v4b0ext-IEs,
                    v590NonCriticalExtensions      SEQUENCE {
                        cellUpdateConfirm-v590ext      CellUpdateConfirm-v590ext-IEs,
                        v6xyNonCriticalExtensions      SEQUENCE {
```

```
                                cellUpdateConfirm-v6xyext        CellUpdateConfirm-v6xyext-IEs,
                                nonCriticalExtensions            SEQUENCE {} OPTIONAL
                            } OPTIONAL
                        } OPTIONAL
                    } OPTIONAL
                } OPTIONAL
        },
        later-than-r3                    SEQUENCE {
            u-RNTI                           U-RNTI,
            rrc-TransactionIdentifier        RRC-TransactionIdentifier,
            criticalExtensions               CHOICE {
                r4                               SEQUENCE {
                    -- The rest of the message is identical to the one sent on DCCH.
                    cellUpdateConfirm-r4         CellUpdateConfirm-r4-IEs,
                    v4d0NonCriticalExtensions        SEQUENCE {
                        -- Container for adding non critical extensions after freezing REL-5
                        cellUpdateConfirm-CCCH-r4-add-ext     BIT STRING     OPTIONAL,
                        v590NonCriticalExtensions        SEQUENCE {
                            cellUpdateConfirm-v590ext        CellUpdateConfirm-v590ext-IEs,
                            v6xyNonCriticalExtensions        SEQUENCE {
                                cellUpdateConfirm-v6xyext        CellUpdateConfirm-v6xyext-IEs,
                                nonCriticalExtensions            SEQUENCE {}      OPTIONAL
                            } OPTIONAL
                        } OPTIONAL
                    },
                    criticalExtensions               CHOICE {
                        r5                               SEQUENCE {
                            cellUpdateConfirm-r5         CellUpdateConfirm-r5-IEs,
                            cellUpdateConfirm-CCCH-r5-add-ext     BIT STRING     OPTIONAL,
                            v6xyNonCriticalExtensions        SEQUENCE {
                                cellUpdateConfirm-v6xyext     CellUpdateConfirm-v6xyext-IEs,
                                nonCriticalExtensions            SEQUENCE {}      OPTIONAL
                            } OPTIONAL
                        },
                        criticalExtensions               SEQUENCE {}
                    }
                }
            }
        }
}


                                    :: Modified PDU ::


-- **************************************************
--
-- URA UPDATE CONFIRM
--
-- **************************************************

URAUpdateConfirm ::= CHOICE {
    r3                               SEQUENCE {
        uraUpdateConfirm-r3          URAUpdateConfirm-r3-IEs,
        laterNonCriticalExtensions        SEQUENCE {
            -- Container for additional R99 extensions
            uraUpdateConfirm-r3-add-ext     BIT STRING      OPTIONAL,
            v6xyNonCriticalExtensions        SEQUENCE {
                uraUpdateConfirm-v6xyext        URAUpdateConfirm-v6xyext-IEs,
                nonCriticalExtensions            SEQUENCE {}      OPTIONAL
            } OPTIONAL
        } OPTIONAL
    },
    later-than-r3                    SEQUENCE {
        rrc-TransactionIdentifier        RRC-TransactionIdentifier,
        criticalExtensions               CHOICE {
            r5                               SEQUENCE {
                uraUpdateConfirm-r5          URAUpdateConfirm-r5-IEs,
                v6xyNonCriticalExtensions        SEQUENCE {
                    uraUpdateConfirm-v6xyext        URAUpdateConfirm-v6xyext-IEs,
                    nonCriticalExtensions            SEQUENCE {}      OPTIONAL
                } OPTIONAL
            },
            criticalExtensions               SEQUENCE {}
        }
    }
}
```

```
URAUpdateConfirm-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        integrityProtectionModeInfo     IntegrityProtectionModeInfo        OPTIONAL,
        cipheringModeInfo               CipheringModeInfo                  OPTIONAL,
        new-U-RNTI                      U-RNTI                             OPTIONAL,
        new-C-RNTI                      C-RNTI                             OPTIONAL,
        rrc-StateIndicator              RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff      UTRAN-DRX-CycleLengthCoefficient   OPTIONAL,
    -- CN information elements
        cn-InformationInfo              CN-InformationInfo                 OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                    URA-Identity                       OPTIONAL,
    -- Radio bearer IEs
        dl-CounterSynchronisationInfo   DL-CounterSynchronisationInfo      OPTIONAL
}

URAUpdateConfirm-r5-IEs ::= SEQUENCE {
    -- User equipment IEs
        integrityProtectionModeInfo     IntegrityProtectionModeInfo        OPTIONAL,
        cipheringModeInfo               CipheringModeInfo                  OPTIONAL,
        new-U-RNTI                      U-RNTI                             OPTIONAL,
        new-C-RNTI                      C-RNTI                             OPTIONAL,
        rrc-StateIndicator              RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff      UTRAN-DRX-CycleLengthCoefficient   OPTIONAL,
    -- CN information elements
        cn-InformationInfo              CN-InformationInfo                 OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                    URA-Identity                       OPTIONAL,
    -- Radio bearer IEs
        dl-CounterSynchronisationInfo   DL-CounterSynchronisationInfo-r5   OPTIONAL
}

URAUpdateConfirm-v6xyext-IEs ::= SEQUENCE {
    -- Core network IEs
        primary-plmn-Identity               PLMN-Identity                  OPTIONAL
}


-- **************************************************
--
-- URA UPDATE CONFIRM for CCCH
--
-- **************************************************

URAUpdateConfirm-CCCH ::= CHOICE {
    r3                              SEQUENCE {
        uraUpdateConfirm-CCCH-r3        URAUpdateConfirm-CCCH-r3-IEs,
        laterNonCriticalExtensions          SEQUENCE {
            -- Container for additional R99 extensions
            uraUpdateConfirm-CCCH-r3-add-ext        BIT STRING      OPTIONAL,
            v6xyNonCriticalExtensions       SEQUENCE {
                uraUpdateConfirm-v6xyext            URAUpdateConfirm-v6xyext-IEs,
                nonCriticalExtensions           SEQUENCE {}     OPTIONAL
            }   OPTIONAL
        }   OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        u-RNTI                          U-RNTI,
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

URAUpdateConfirm-CCCH-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        u-RNTI                          U-RNTI,
    -- The rest of the message is identical to the one sent on DCCH.
        uraUpdateConfirm                URAUpdateConfirm-r3-IEs
}
```

----------- End of Modifications ------------