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

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

Source: TSG-RAN WG2

Agenda item: 7.2.3

Doc-1st-	Status-	Spec	CR	Rev	Phase	Subject	Cat	Versio	Versio
R2-022048	agreed	25.331	1502	1	R99	UE behaviour when active set cells are not included in CELL_INFO_LIST	F	3.11.0	3.12.0
R2-022049	agreed	25.331	1503	1	Rel-4	UE behaviour when active set cells are not included in CELL_INFO_LIST	А	4.5.0	4.6.0
R2-022050	agreed	25.331	1504	1	Rel-5	UE behaviour when active set cells are not included in CELL_INFO_LIST	А	5.1.0	5.2.0
R2-022045	agreed	25.331	1505	1	R99	Corrections to handling of IE "Cells for measurement"	F	3.11.0	3.12.0
R2-022046	agreed	25.331	1506	1	Rel-4	Corrections to handling of IE "Cells for measurement"	А	4.5.0	4.6.0
R2-022047	agreed	25.331	1507	1	Rel-5	Corrections to handling of IE "Cells for measurement"	А	5.1.0	5.2.0
R2-021697	agreed	25.331	1508		R99	Clarification on the use of UE radio access capability extensions	F	3.11.0	3.12.0
R2-021698	agreed	25.331	1509		Rel-4	Clarification on the use of UE radio access capability extensions	А	4.5.0	4.6.0
R2-021699	agreed	25.331	1510		Rel-5	Clarification on the use of UE radio access capability extensions	А	5.1.0	5.2.0
R2-021700	agreed	25.331	1511		R99	Correction to RRC connection procedure	F	3.11.0	3.12.0
R2-021701	agreed	25.331	1512		Rel-4	Correction to RRC connection procedure	Α	4.5.0	4.6.0
R2-021702	agreed	25.331	1513		Rel-5	Correction to RRC connection procedure	Α	5.1.0	5.2.0
R2-021703	agreed	25.331	1514		R99	Correction to the variable TGPS_IDENTITY	F	3.11.0	3.12.0
R2-021704	agreed	25.331	1515		Rel-4	Correction to the variable TGPS_IDENTITY	Α	4.5.0	4.6.0
R2-021705	agreed	25.331	1516		Rel-5	Correction to the variable TGPS_IDENTITY	Α	5.1.0	5.2.0
R2-021707	agreed	25.331	1520		R99	Missing IEs in RLC info	F	3.11.0	3.12.0
R2-021603		25.331	1521		Rel-4	Missing IEs in RLC info	Α	4.5.0	4.6.0
R2-021604	agreed	25.331	1522		Rel-5	Missing IEs in RLC info	Α	5.1.0	5.2.0

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

		CHANGE	REQ	UE	ST	-	CR-Form-v7
*	25.331 CR	1502	жrev	1	¥	Current version: 3.11.0	O H

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

Proposed chang	ge a	affects:	UICC apps#	M	E X Radio Aco	cess Netwo	rk X	Core Networ	k
Title:	ж	UE beh	aviour when act	ive set cells	are not include	d in CELL_	INFO_	LIST	
Source:	Ж	TSG-RA	AN WG2						
Work item code:	:₩	TEI				Date: ₩	July	/ 2002	
Category:	Ж	F			ı	Release: ೫	R99	9	
			of the following ca	tegories:				llowing releases	::
		٠,	orrection)			2	•	l Phase 2)	
		•	orresponds to a c		n earlier release)		•	ase 1996)	
		,	ddition of feature)	•		R97	•	ase 1997)	
		- 1	unctional modifica		e)	R98	•	ase 1998)	
		•	ditorial modification	,		R99	•	ase 1999)	
			explanations of the		gories can	Rel-4	,	ase 4)	
		be found i	in 3GPP <u>TR 21.90</u>	<u>10</u> .		Rel-5	•	ase 5)	
						Rel-6	(Rele	ase 6)	

### Reason for change: #

The measurement behaviour of the UE is not clearly specified in the case that an ACTIVE SET UPDATE message is used to add a cell that is not part of the variable CELL INFO LIST to the active set. If a cell is not included in CELL\_INFO\_LIST there are parameters that are required for event evaluation that are not known to the UE. Hence, it is not clear how the UE can perform measurements and event evaluation on this cell.

### Summary of change: ₩

### Revision 1:

The text that was proposed to be added to 8.3.4.3 in the first revision of this CR, is proposed to be moved to section 8.4.0. This because 8.4.0. is the general text on measurements.

The text is slightly generalised in order to make it not specific for the active set update procedure. This has the additional benefit that now also the case when the active set cell is no longer included in the CELL INFO LIST is addressed.

### First revision:

In section 8.3.4.3, it is specified that when an active set update message adds a cell to the active set that is not part of the CELL\_INFO\_LIST, the UE shall not consider this cell for measurement and event evaluation.

Furthermore a note is added to capture the understanding that after such an active set update the UTRAN will send a MEASUREMENT CONTROL message to add the active set cell to the variable CELL\_INFO\_LIST.

### **Isolated Impact Analysis**

Functionality corrected: Intra-frequency measurements

Isolated impact statement: Correction to a function where specification was not sufficiently explicit. Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

### Impact on test specification

The behaviour covered by this CR is not currently cover in the test specifications. Hence, there is no impact of test specifications.

Consequences if not approved:

If the CR is not approved the behaviour of the UE will not be completely specified in the case that the network adds a cell to the active set that is not in CELL INFO LIST.

Clauses affected:	第 8.4.0
Other specs affected:	Y N  X Other core specifications Test specifications O&M Specifications
Other comments:	*

### How to create CRs using this form:

- 1) Fill out the above form. The symbols above marked # contain pop-up help information about the field that they are closest to
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### 8.3.4.3 Reception of an ACTIVE SET UPDATE message by the UE

Upon reception of an ACTIVE SET UPDATE message the UE shall act upon all received information elements as specified in 8.6, unless specified otherwise in the following. The UE shall:

- 1> first add the RLs indicated in the IE "Radio Link Addition Information";
- 1> remove the RLs indicated in the IE "Radio Link Removal Information". If the UE active set is full or becomes full, an RL, which is included in the IE "Radio Link Removal Information" for removal, shall be removed before adding RL, which is included in the IE "Radio Link Addition Information" for addition;
- 1> perform the physical layer synchronisation procedure as specified in [29];
- 1> if the IE "TFCI combining indicator" associated with a radio link to be added is set to TRUE:
  - 2> if a DSCH transport channel is assigned and there is a 'hard' split in the TFCI field:
    - 3> configure Layer 1 to soft-combine TFCI (field 2) of this new link with those links already in the TFCI (field 2) combining set.
- 1> set the IE "RRC transaction identifier" in the ACTIVE SET UPDATE COMPLETE message to the value of "RRC transaction identifier" in the entry for the ACTIVE SET UPDATE message in the table "Accepted transactions" in the variable TRANSACTIONS; and
- 1> clear that entry;
- 1> transmit an ACTIVE SET UPDATE COMPLETE message on the uplink DCCH using AM RLC without waiting for the Physical Layer synchronisation;
- 1> the procedure ends on the UE side.

### 8.4 Measurement procedures

### 8.4.0 Measurement related definitions

UTRAN may control a measurement in the UE either by broadcast of SYSTEM INFORMATION and/or by transmitting a MEASUREMENT CONTROL message.

The following information is used to control the UE measurements and the measurement results reporting:

- 1. **Measurement identity**: A reference number that should be used by the UTRAN when setting up, modifying or releasing the measurement and by the UE in the measurement report.
- 2. **Measurement command**: One out of three different measurement commands.
  - Setup: Setup a new measurement.
  - Modify: Modify a previously defined measurement, e.g. to change the reporting criteria.
  - Release: Stop a measurement and clear all information in the UE that are related to that measurement.
- 3. **Measurement type**: One of the types listed below describing what the UE shall measure.

Presence or absence of the following control information depends on the measurement type

- 4. **Measurement objects:** The objects on which the UE shall measure measurement quantities, and corresponding object information.
- 5. **Measurement quantity:** The quantity the UE shall measure on the measurement object. This also includes the filtering of the measurements.
- 6. **Reporting quantities:** The quantities the UE shall include in the report in addition to the quantities that are mandatory to report for the specific event.
- 7. **Measurement reporting criteria**: The triggering of the measurement report, e.g. periodical or event-triggered reporting.
- 8. **Measurement Validity**: Defines in which UE states the measurement is valid.
- 9. **Measurement reporting mode**: This specifies whether the UE shall transmit the measurement report using AM or UM RLC.
- 10. **Additional measurement identities**: A list of references to other measurements. When this measurement triggers a measurement report, the UE shall also include the reporting quantities for the measurements referenced by the additional measurement identities.

All these measurement parameters depend on the measurement type and are described in more detail in clause 14.

The different types of measurements are:

- Intra-frequency measurements: measurements on downlink physical channels at the same frequency as the active set. A measurement object corresponds to one cell. Detailed description is found in subclause 14.1.
- **Inter-frequency measurements**: measurements on downlink physical channels at frequencies that differ from the frequency of the active set. A measurement object corresponds to one cell. Detailed description is found in subclause 14.2.
- **Inter-RAT measurements**: measurements on downlink physical channels belonging to another radio access technology than UTRAN, e.g. GSM. A measurement object corresponds to one cell. Detailed description is found in subclause 14.3.
- **Traffic volume measurements**: measurements on uplink traffic volume. A measurement object corresponds to one cell. Detailed description is found in subclause 14.4.

- Quality measurements: Measurements of downlink quality parameters, e.g. downlink transport block error rate. A measurement object corresponds to one transport channel in case of BLER. A measurement object corresponds to one timeslot in case of SIR (TDD only). Detailed description is found in subclause 14.5.
- **UE-internal measurements**: Measurements of UE transmission power and UE received signal level. Detailed description is found in subclause 14.6.
- UE positioning measurements: Measurements of UE position. Detailed description is found in subclause 14.7.

The UE shall support a number of measurements running in parallel as specified in [19] and [20]. The UE shall also support that each measurement is controlled and reported independently of every other measurement.

Cells that the UE is monitoring are grouped in the UE into three mutually exclusive categories:

- Cells, which belong to the active set. User information is sent from all these cells. In FDD, the cells in the active set are involved in soft handover. In TDD the active set always comprises one cell only. The UE shall only consider active set cells included in the variable CELL\_INFO\_LIST for measurement. I.e. active set cells not included in the CELL\_INFO\_LIST shall not be considered in any event evaluation and measurement reporting.
- 2. Cells, which are not included in the active set, but are included in the CELL\_INFO\_LIST belong to the **monitored set.**
- 3. Cells detected by the UE, which are neither in the CELL\_INFO\_LIST nor in the active set belong to the **detected set.** Reporting of measurements of the detected set is only applicable to intra-frequency measurements made by UEs in CELL\_DCH state.

If the IE "Cells for measurement" has been included in MEASUREMENT CONTROL or System Information Block type 11 or System Information Block type 12, only monitored set cells explicitly indicated for a given intra-frequency (resp. inter-frequency, interRAT) measurement by the IE "Cells for measurement" shall be considered for measurement. If the IE "Cells for measurement" has not been included in MEASUREMENT CONTROL or System Information Block type 11 or System Information Block type 12, all of the intra-frequency (resp. inter-frequency, inter RAT) cells stored in the variable CELL INFO LIST shall be considered for measurement.

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

	(	CHANGE	EREQ	UE	ST	-		CR-Form-v7
*	25.331 CR	1503	жrev	1	Ħ	Current version:	4.5.0	ж
- 450								

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

Proposed chang	ge a	affects:	UICC apps#	M	E X Radio Ac	cess Networ	k X Core Netwo	ork
Title:	$\mathfrak{H}$	UE beh	naviour when a	ctive set cells	are not include	ed in CELL_I	NFO_LIST	
Source:	ж	TSG-R	AN WG2					
Work item code	:#	TEI				Date: ₩	July 2002	
Category:	ж					Release: ₩		
		<b>F</b> (0	of the following of correction)	J	n applica valagas	2	the following release (GSM Phase 2) (Palance 1996)	es:
		<b>B</b> (8	addition of featur	e),	n earlier release)	R97	(Release 1996) (Release 1997)	
			<sup>f</sup> unctional modific editorial modifica		e <i>)</i>		(Release 1998) (Release 1999)	
		•	explanations of t	,	gories can		(Release 4)	
			in 3GPP TR 21.		<b>,</b>		(Release 5)	
						Rel-6	(Release 6)	

### Reason for change: #

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

		CHANG	E REQ	UE	ST	-		CR-Form-v7
*	25.331	CR 1504	<b>≋ rev</b>	1	¥	Current version:	5.1.0	Ħ

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

Proposed chang	ge a	affects:	UICC apps#	N	IE 🗶 Radio Ac	cess Networ	k X Core Ne	etwork
Title:	$\mathfrak{R}$	UE beh	aviour when a	ctive set cells	s are not include	ed in CELL_I	NFO_LIST	
Source:	$\mathfrak{R}$	TSG-R	AN WG2					
Work item code	<b>:</b>	TEI				Date: ♯	July 2002	
							,	
Category:	$\mathfrak{R}$	Α				Release: ₩	Rel-5	
		Use one	of the following of	categories:		Use <u>one</u> of	the following rele	eases:
		<b>F</b> (c	correction)			2	(GSM Phase 2)	
		<b>A</b> (0	orresponds to a	correction in a	an earlier release)	) R96	(Release 1996)	
		<b>Β</b> (ε	addition of featur	e),		R97	(Release 1997)	
		<b>C</b> (f	unctional modific	cation of featu	re)	R98	(Release 1998)	
		<b>D</b> (6	editorial modifica	tion)		R99	(Release 1999)	
		Detailed of	explanations of t	he above cate	gories can	Rel-4	(Release 4)	
		be found	in 3GPP TR 21.	<u>900</u> .	-	Rel-5	(Release 5)	
l						D-10	(D-1 0)	

Reason for change: # The measurement behaviour of the UE is not clearly specified in the case that an

ACTIVE SET UPDATE message is used to add a cell that is not part of the variable CELL\_INFO\_LIST to the active set. If a cell is not included in CELL\_INFO\_LIST there are parameters that are required for event evaluation that are not known to the UE. Hence, it is not clear how the UE can perform

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**Isolated Impact Analysis** 

Functionality corrected: Intra-frequency measurements

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### Impact on test specification

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Consequences if not approved:

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Clauses affected:	第 8.4.0
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- 1> the procedure ends on the UE side.

### 8.4 Measurement procedures

### 8.4.0 Measurement related definitions

UTRAN may control a measurement in the UE either by broadcast of SYSTEM INFORMATION and/or by transmitting a MEASUREMENT CONTROL message.

The following information is used to control the UE measurements and the measurement results reporting:

- 1. **Measurement identity**: A reference number that should be used by the UTRAN when setting up, modifying or releasing the measurement and by the UE in the measurement report.
- 2. **Measurement command**: One out of three different measurement commands.
  - Setup: Setup a new measurement.
  - Modify: Modify a previously defined measurement, e.g. to change the reporting criteria.
  - Release: Stop a measurement and clear all information in the UE that are related to that measurement.
- 3. **Measurement type**: One of the types listed below describing what the UE shall measure.

Presence or absence of the following control information depends on the measurement type

- 4. **Measurement objects:** The objects on which the UE shall measure measurement quantities, and corresponding object information.
- 5. **Measurement quantity:** The quantity the UE shall measure on the measurement object. This also includes the filtering of the measurements.
- 6. **Reporting quantities:** The quantities the UE shall include in the report in addition to the quantities that are mandatory to report for the specific event.
- 7. **Measurement reporting criteria**: The triggering of the measurement report, e.g. periodical or event-triggered reporting.
- 8. **Measurement Validity**: Defines in which UE states the measurement is valid.
- 9. **Measurement reporting mode**: This specifies whether the UE shall transmit the measurement report using AM or UM RLC.
- 10. **Additional measurement identities**: A list of references to other measurements. When this measurement triggers a measurement report, the UE shall also include the reporting quantities for the measurements referenced by the additional measurement identities.

All these measurement parameters depend on the measurement type and are described in more detail in clause 14.

The different types of measurements are:

- Intra-frequency measurements: measurements on downlink physical channels at the same frequency as the active set. A measurement object corresponds to one cell. Detailed description is found in subclause 14.1.
- **Inter-frequency measurements**: measurements on downlink physical channels at frequencies that differ from the frequency of the active set. A measurement object corresponds to one cell. Detailed description is found in subclause 14.2.
- **Inter-RAT measurements**: measurements on downlink physical channels belonging to another radio access technology than UTRAN, e.g. GSM. A measurement object corresponds to one cell. Detailed description is found in subclause 14.3.
- **Traffic volume measurements**: measurements on uplink traffic volume. A measurement object corresponds to one cell. Detailed description is found in subclause 14.4.

- Quality measurements: Measurements of downlink quality parameters, e.g. downlink transport block error rate. A measurement object corresponds to one transport channel in case of BLER. A measurement object corresponds to one timeslot in case of SIR (TDD only). Detailed description is found in subclause 14.5.
- **UE-internal measurements**: Measurements of UE transmission power and UE received signal level. Detailed description is found in subclause 14.6.
- UE positioning measurements: Measurements of UE position. Detailed description is found in subclause 14.7.

The UE shall support a number of measurements running in parallel as specified in [19] and [20]. The UE shall also support that each measurement is controlled and reported independently of every other measurement.

Cells that the UE is monitoring are grouped in the UE into three mutually exclusive categories:

- Cells, which belong to the active set. User information is sent from all these cells. In FDD, the cells in the active
  set are involved in soft handover. In TDD the active set always comprises one cell only. The UE shall only
  consider active set cells included in the variable CELL\_INFO\_LIST for measurement. I.e. active set cells not
  included in the CELL\_INFO\_LIST shall not be considered in any event evaluation or measurement reporting.
- 2. Cells, which are not included in the active set, but are included in the CELL\_INFO\_LIST belong to the **monitored set.**
- 3. Cells detected by the UE, which are neither in the CELL\_INFO\_LIST nor in the active set belong to the **detected set.** Reporting of measurements of the detected set is only applicable to intra-frequency measurements made by UEs in CELL\_DCH state.

If the IE "Cells for measurement" has been included in MEASUREMENT CONTROL or System Information Block type 11 or System Information Block type 12, only monitored set cells explicitly indicated for a given intra-frequency (resp. inter-frequency, interRAT) measurement by the IE "Cells for measurement" shall be considered for measurement. If the IE "Cells for measurement" has not been included in MEASUREMENT CONTROL or System Information Block type 11 or System Information Block type 12, all of the intra-frequency (resp. inter-frequency, inter RAT) cells stored in the variable CELL INFO LIST shall be considered for measurement.

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

Proposed change affects: UICC apps#

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

Corrections to handling of IE "Cells for measurement" Title: Source: TSG-RAN WG2 Date: 第 August 2002 Category: Release: # R99 Use <u>one</u> of the following categories: Use <u>one</u> of the following releases: **F** (correction) (GSM Phase 2) 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) (Release 1998) R98 **D** (editorial modification) R99 (Release 1999) Detailed explanations of the above categories can Rel-4 (Release 4) be found in 3GPP TR 21.900. Rel-5 (Release 5)

#### 

In R0 of this CR, it was clarified that the "cells for measurement" is not applicable to active set cells: "cells for measurement" cannot be used to restrict the applicability of active set cells related to e.g. triggering condition, reporting range evaluation or the active set cells compared to in event 1c.

ME X Radio Access Network X Core Network

Rel-6

(Release 6)

On the email reflector, questions were raised regarding the applicability of "cells for measurement" for inter-frequency measurements. For inter-frequency measurements, the intention is that the Virtual Active Set should be handled as if it was the active set (just on another frequency). This means that event evaluation of 1a,1b,1c in the inter-frequency case is aligned to the intra-frequency case.

As a result for the inter-frequency case this revision of the CR clarifies that the "cells for measurement" is also not applicable to cells in the virtual active set: "cells for measurement" can not be used to restrict the applicability of virtual active set cells related to frequency quality estimates, triggering condition or evaluation of virtual active set cells compared to in event 1c.

Changes made in Revision 1 are highlighted in yellow.

### Revision 0:

Section 8.4.0 includes 2 inconsistencies/unclarities:

1) It incorrectly refers to the IE "cells for measurement" being relevant when received in SIB11/SIB12. However the IE is not included for the intra- and interfrequency case, and for the inter-RAT case it is specified in 25.331 that the

received information shall be ignored.

2) Allthough the section only talks about monitored set cells when discussing the IE "cells for measurement", implementations might still incorrectly assume that the IE is also applicable to active set cells.

### Summary of change: ₩

- 1) The inconsistency is removed;
- 2) It is explicitly clarified that the IE "cells for measurement" is not applicable to active set cells or virtual active set cells;

### **Isolated Impact Change Analysis.**

Impacted functionality: Usage of IE "cells for measurement"

Correction to a function where specification was inconsistent.

This CR has no impact on implementations already aware of the indicated inconsistencies and assuming the correct behaviour. UE implementations not aware of these inconsistencies might interprete the wrong broadcast information and might not report on relevant active set cells.

# Consequences if not approved:

The description of the UE handling of the IE "cells for measurement" remains inconsistent which might lead to UE implementations interpreting the wrong broadcast information and not reporting on relevant active set cells

Clauses affected:	第 8.4.0
Other specs affected:	Y N  X Other core specifications   X Test specifications  O&M Specifications
Other comments:	*

### How to create CRs using this form:

- 1) Fill out the above form. The symbols above marked # contain pop-up help information about the field that they are closest to.
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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.

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Presence or absence of the following control information depends on the measurement type

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- 9. **Measurement reporting mode**: This specifies whether the UE shall transmit the measurement report using AM or UM RLC.
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All these measurement parameters depend on the measurement type and are described in more detail in clause 14.

The different types of measurements are:

- **Intra-frequency measurements**: measurements on downlink physical channels at the same frequency as the active set. A measurement object corresponds to one cell. Detailed description is found in subclause 14.1.
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- **UE positioning measurements:** Measurements of UE position. Detailed description is found in subclause 14.7.

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If the IE "Cells for measurement" has been included in a MEASUREMENT CONTROL message or System Information Block type 11 or System Information Block type 12, only monitored set cells explicitly indicated for a given intra-frequency (resp. inter-frequency, interRAT) measurement by the IE "Cells for measurement" shall be considered for measurement. If the IE "Cells for measurement" has not been included in a MEASUREMENT CONTROL message or System Information Block type 11 or System Information Block type 12, all of the intra-frequency (resp. inter-frequency, inter RAT) cells stored in the variable CELL\_INFO\_LIST shall be considered for measurement. The IE "Cells for measurement" is not applicable to active set cells or virtual active set cells e.g. when the triggering condition refers to active set cells, the UE shall consider all active set cells in the CELL\_INFO\_LIST for measurement irrespective if these cells are explicitly indicated by the IE "cells for measurement".

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

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

ME X Radio Access Network X Core Network Proposed change affects: UICC apps# Corrections to handling of IE "Cells for measurement" Title: Source: TSG-RAN WG2 Date: 第 August 2002 Category: Release: # Rel-4 Use one of the following categories: Use <u>one</u> of the following releases: **F** (correction) (GSM Phase 2) 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) (Release 1998) R98 **D** (editorial modification) R99 (Release 1999) Detailed explanations of the above categories can Rel-4 (Release 4)

#### 

In R0 of this CR, it was clarified that the "cells for measurement" is not applicable to active set cells: "cells for measurement" cannot be used to restrict the applicability of active set cells related to e.g. triggering condition, reporting range evaluation or the active set cells compared to in event 1c.

Rel-5

Rel-6

(Release 5)

(Release 6)

On the email reflector, questions were raised regarding the applicability of "cells for measurement" for inter-frequency measurements. For inter-frequency measurements, the intention is that the Virtual Active Set should be handled as if it was the active set (just on another frequency). This means that event evaluation of 1a,1b,1c in the inter-frequency case is aligned to the intra-frequency case.

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Changes made in Revision 1 are highlighted in yellow.

### Revision 0:

be found in 3GPP TR 21.900.

Section 8.4.0 includes 2 inconsistencies/unclarities:

1) It incorrectly refers to the IE "cells for measurement" being relevant when received in SIB11/SIB12. However the IE is not included for the intra- and interfrequency case, and for the inter-RAT case it is specified in 25.331 that the

received information shall be ignored.

2) Allthough the section only talks about monitored set cells when discussing the IE "cells for measurement", implementations might still incorrectly assume that the IE is also applicable to active set cells.

### Summary of change: ₩

- 1) The inconsistency is removed;
- 2) It is explicitly clarified that the IE "cells for measurement" is not applicable to active set cells or virtual active set cells;

### **Isolated Impact Change Analysis.**

Impacted functionality: Usage of IE "cells for measurement"

Correction to a function where specification was inconsistent.

This CR has no impact on implementations already aware of the indicated inconsistencies and assuming the correct behaviour. UE implementations not aware of these inconsistencies might interprete the wrong broadcast information and might not report on relevant active set cells.

# Consequences if not approved:

The description of the UE handling of the IE "cells for measurement" remains inconsistent which might lead to UE implementations interpreting the wrong broadcast information and not reporting on relevant active set cells

Clauses affected:	第 8.4.0
Other specs affected:	Y N  X Other core specifications   Test specifications   O&M Specifications
Other comments:	lpha

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

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

ME X Radio Access Network X Core Network Proposed change affects: UICC apps# Corrections to handling of IE "Cells for measurement" Title: Source: TSG-RAN WG2 Date: 第 August 2002 Category: Release: # Rel-5 Use one of the following categories: Use <u>one</u> of the following releases: (GSM Phase 2) **F** (correction) 2 **A** (corresponds to a correction in an earlier release) R96 (Release 1996) **B** (addition of feature), R97 (Release 1997) (Release 1998) **C** (functional modification of feature) R98 **D** (editorial modification) R99 (Release 1999) Detailed explanations of the above categories can Rel-4 (Release 4) be found in 3GPP TR 21.900. Rel-5 (Release 5)

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In R0 of this CR, it was clarified that the "cells for measurement" is not applicable to active set cells: "cells for measurement" cannot be used to restrict the applicability of active set cells related to e.g. triggering condition, reporting range evaluation or the active set cells compared to in event 1c.

Rel-6

(Release 6)

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Changes made in Revision 1 are highlighted in yellow.

### Revision 0:

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1) It incorrectly refers to the IE "cells for measurement" being relevant when received in SIB11/SIB12. However the IE is not included for the intra- and interfrequency case, and for the inter-RAT case it is specified in 25.331 that the

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2) Allthough the section only talks about monitored set cells when discussing the IE "cells for measurement", implementations might still incorrectly assume that the IE is also applicable to active set cells.

### Summary of change: ₩

- 1) The inconsistency is removed;
- 2) It is explicitly clarified that the IE "cells for measurement" is not applicable to active set cells or virtual active set cells;

### **Isolated Impact Change Analysis.**

Impacted functionality: Usage of IE "cells for measurement"

Correction to a function where specification was inconsistent.

This CR has no impact on implementations already aware of the indicated inconsistencies and assuming the correct behaviour. UE implementations not aware of these inconsistencies might interprete the wrong broadcast information and might not report on relevant active set cells.

# Consequences if not approved:

The description of the UE handling of the IE "cells for measurement" remains inconsistent which might lead to UE implementations interpreting the wrong broadcast information and not reporting on relevant active set cells

Clauses affected:	第 8.4.0
Other specs affected:	Y N  X Other core specifications   Test specifications   O&M Specifications
Other comments:	lpha

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# 3GPP TSG-RAN WG2 Meeting #30 Turin, Italy, June 24<sup>th</sup>-28<sup>th</sup>, 2002

	CHANGE REQUEST	7
*	25.331 CR 1508	

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

Proposed chan	ge a	affects: UICC apps第 <mark>    ME </mark> X R	≀adio Acc	ess Netwo	rk X Core Network
Title:	Ж	Clarification on the use of UE radio access	s capabili	ty extensio	ns within the INTERAT
		HANDOVER INFO message			
		TOO BANIMOO			
Source:	Ж	TSG RAN WG2			
Work item code	e:#	TEI		Date: ♯	24-06-2002
Category:	$\mathfrak{H}$	F	1	Release: #	R99
		Use one of the following categories:		Use <u>one</u> of	the following releases:
		<b>F</b> (correction)		2	(GSM Phase 2)
		A (corresponds to a correction in an earlier	r 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 cabe found in 3GPP TR 21.900.	an	Rel-4 Rel-5	(Release 4) (Release 5)
		be found in 3011 11(21.900.		Rel-6	(Release 6)

Reason for change: 

The UE requirements on setting the contents of the UE radio access capabilities within the INTER RAT HANDOVER message are ambiguous

UEs that do not require compressed mode to perform inter RAT measurents are currently not required to report certain measurements

Summary of change: # The following changes are introduced in this CR

UE radio access capabilities within the INTER RAT HANDOVER message

- In the tabular of the INTER RAT HANDOVER message the need of IE UE radio access capability extensions is changed to MP to align with the ASN.1
- Clarification is added that the UE shall include valid capability information in the mandatory IE UE radio access capabilities even when this information is not really required

Reporting of measurements that may require compressed mode

 Clarification is added that the statement that UEs need not report certain inter RAT measurements if no compressed mode pattern is configured for it does not apply for UEs that do not require compressed mode to perform such measurents

### Impact analysis:

<u>Impacted functionality</u>: Handover from GSM to UMTS for a dual mode mobile supporting only the 2100 UTRA frequency band

<u>Correction type</u>: Clarification of a function where the specification is incomplete and ambiguous. Would not affect implementations behaving like indicated in the

CR, would affect implementations supporting the corrected functionality otherwise

### Interoperability:

- Isolated impact: the impact is isolated; only the corrected functionality is affected
- CR implemented only by UTRAN: The current UE behaviour is unclear meaning that some dual mode UEs only supporting the 2100 UTRA frequency band may include capability information in the extension rather than in the original IE, as would be the case for the 1900 band, which may result in failure of the Handover from GSM to UMTS.
- CR implemented only by UE: In this case no severe interoperability problems
  are foreseen e.g. the CR should not affect UTRANs only supporting the 2100
  UTRA band since these may ignore the extension. UTRANs supporting the
  1900 and the 2100 UTRA frequency band will have to handle the extension,
  but they may choose to either treat the duplicate information included in the
  extension or to ignore it

### Test specifications

 There seems to be no test case that verifies the contents of the INTER RAT HANDOVER MESSAGE, which means there is no impact on the test cases

# Consequences if not approved:

## The UE requirements on setting the contents of the UE radio access capabilities within the INTER RAT HANDOVER message remains ambiguous which may result in failure of the handover to UTRAN

UEs that do not require compressed mode to perform inter RAT measurents may not report certain measurements

Clauses affected:	<b>8</b> 8.1.16.3, 8.6.7.6, 10.2.16d, 14.12.4.1							
Other specs	Y N  X Other core specifications  X							
affected:	X Test specifications O&M Specifications							
Other comments:								

### How to create CRs using this form:

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

### 8.1.16 Inter RAT handover information transfer



Figure 8.1.16-1: Inter RAT handover information transfer, normal flow

### 8.1.16.1 General

The inter RAT handover information transfer procedure is used by the UE to convey RRC information needed for inter RAT handover to UTRAN.

### 8.1.16.2 Initiation

If:

- a radio access technology other than UTRA, e.g. GSM, using radio access technology-specific procedures, orders the UE to provide the INTER RAT HANDOVER INFO message; or
- a radio access technology other than UTRA, e.g. GSM, using radio access technology-specific procedures, configures the UE to send the INTER RAT HANDOVER INFO message upon system specific conditions not involving an explicit order e.g. early classmark sending upon entering connected mode; or
- while in connected mode using another radio access technology, the inter RAT handover info changes compared to what has previously been sent via the other radio access technology:

### the UE shall:

1> initiate the inter RAT handover information transfer procedure.

To determine if the inter RAT handover info has changed compared to what has previously been sent, the UE shall:

- 1> store the information last sent in the variable INTER\_RAT\_HANDOVER\_INFO\_TRANSFERRED;
- 1> if this variable has not yet been set:
  - 2> not initiate the inter RAT handover information transfer procedure due to change of inter RAT handover info.

NOTE: Currently neither the UE security information nor the predefined configuration status information change while in connected mode using GSM radio access technology.

### 8.1.16.3 INTER RAT HANDOVER INFO message contents to set

The UE shall:

- 1> include the IE "Predefined configuration status information" and the IE "UE security information";
- 1> include the <u>IE "UE capability container"</u>, <u>containing the IE "UE radio access capability"</u> and the IE "UE radio access capability extension", in accordance with the following:
  - 2> if the UE supports multiple UTRA FDD Frequency Bands; or
  - 2> if the UE supports a single UTRA FDD Frequency Band different from 2100 MHz:

- 3> include the IE "UE radio access capability", excluding IEs "RF capability FDD" and "Measurement capability";
- 3> include the IE "UE radio access capability extension", including the IEs "RF capability FDD extension" and the "Measurement capability extension" associated with each supported UTRA FDD frequency band indicated in the IE "Frequency band".

### 2> else:

- 3> include the IE "UE radio access capability", including the IEs "RF capability FDD" and "Measurement capability" associated with the 2100 MHz UTRA FDD frequency band-:
- 3> include the IE "UE radio access capability extension", including the IEs "RF capability FDD extension" and the "Measurement capability extension" associated with each supported UTRA FDD frequency band indicated in the IE "Frequency band".
- 1> initiate the transfer of the INTER RAT HANDOVER INFO message via the other radio access technology, using radio access technology-specific procedures;
- 1> store the IE "Predefined configuration status information", the IE "UE security information", the IE "UE radio access capability" and the IE "UE radio access capability extension", if included in the INTER RAT HANDOVER MESSAGE, in variable INTER\_RAT\_HANDOVER\_INFO\_TRANSFERRED;
- 1> and the procedure ends.

### 8.6.7.6 Inter-RAT reporting quantity

If the IE "Inter-RAT reporting quantity" is received by the UE, the UE shall:

1> store the content of the IE to the variable MEASUREMENT\_IDENTITY.

If the IE "Inter-RAT measurement quantity" is received and CHOICE system is GSM, the UE shall check each quantity in the GSM choice. The UE shall include measured results in MEASUREMENT REPORT as specified in the IE "Inter-RAT reporting quantity" with the following restrictions:

- 1> if the UE has not confirmed the BSIC of the measured cell:
  - 2> if no compressed mode pattern sequence specified with measurement purpose "Initial BSIC identification" is active and according to its capabilities the UE requires compressed mode to measure this, the UE is not required to include the "inter-RAT cell id" nor "Observed time difference to GSM cell" in the IE "Inter-RAT measured results list", when a MEASUREMENT REPORT is triggered.
- 1> if the UE has confirmed the BSIC of the measured cell, then:
  - 2> if no compressed mode pattern sequence specified with measurement purpose "Initial BSIC identification" nor "BSIC re-confirmation" is active and according to its capabilities the UE requires compressed mode to measure this, the UE is not required to include the "inter-RAT cell id" nor "Observed time difference to GSM cell" in the IE "Inter-RAT measured results", when a MEASUREMENT REPORT is triggered. If no compressed mode pattern sequence with measurement purpose "GSM carrier RSSI measurements" is active and according to its capabilities the UE requires compressed mode to measure this, the UE may include "inter-RAT cell id" or "Observed time difference to GSM cell" in MEASUMENT REPORT without "GSM carrier RSSI" even if it is defined in the IE "Inter-RAT reporting quantity".
- 1> if the IE "UTRAN estimated quality" is set to "TRUE":
  - 2> ignore that IE.
- 1> if IE "Observed time difference to GSM cell" is set to "TRUE":
  - 2> include optional IE "Observed time difference to GSM cell" with the value set to the time difference to that GSM cell for the GSM cells that have a BSIC that is "verified", and that match any of the BCCH ARFCN and BSIC combinations in the list of inter-RAT cells that the UE has received in IE "Inter-RAT cell info list". Observed time difference to GSM cells with "non-verified" BSIC shall not be included.
- 1> if IE "GSM Carrier RSSI" is set to "TRUE":
  - 2> include optional IE "GSM Carrier RSSI" with a value set to the measured RXLEV to that GSM cell in IE "Inter-RAT measured results list". If no compressed mode pattern sequence specified with measurement purpose "GSM carrier RSSI measurements" is active and according to its capabilities the UE requires compressed mode to measure this, the UE is not required to include the "GSM carrier RSSI" in the IE " Inter-RAT measured results list ", when a MEASUREMENT REPORT is triggered.
- 1> if the BSIC of reported GSM cell is "verified":
  - 2> set the CHOICE BSIC to "Verified BSIC" and IE "inter-RAT cell id" to the value that GSM cell had in the IE "Inter-RAT cell info list".
- 1> if the BSIC of reported GSM cell is "non-verified":
  - 2> set the CHOICE BSIC to "Non verified BSIC" and the IE "BCCH ARFCN" to the value of that GSM cells ARFCN.

The requirements for a cell to be considered "verified" or "non-verified" can be found in [19].

### 10.2.16d INTER RAT HANDOVER INFO

This message is sent by the UE via another radio access technology to provide information to the target RNC when preparing for a handover to UTRAN.

RLC-SAP: N/A (Sent through a different RAT)

Logical channel: N/A (Sent through a different RAT)

Direction: UE  $\rightarrow$  UTRAN

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
Radio Bearer IEs				
Predefined configuration status information	OP		Predefined configuration status information 10.3.4.5a	
UE Information elements				
UE security information	OP		UE security information 10.3.3.42b	
UE capability container	OP			
≥UE radio access capability	<u> </u>		UE radio access capability 10.3.3.42	
≥UE radio access capability extension	<u> </u>		UE radio access capability extension 10.3.3.42a	Although this IE is not always required, the need has been set to MP to align with the ASN.1

### 14.12.4.0a INTER RAT HANDOVER INFO

This RRC message is sent between network nodes to transfer information relevant for the target RNC when preparing for handover to UTRAN.

Direction: source RNC/RAT→target RAT

The message is exactly the same as the INTER RAT HANDOVER INFO defined in subclause 10.2.16d

### 14.12.4.1 INTER RAT HANDOVER INFO WITH INTER RAT CAPABILITIES

This RRC message is sent between network nodes when preparing for an inter RAT handover to UTRAN.

Direction: source RAT→target RNC

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
UE Information elements				
UE security information	OP		UE security	
			information	
			10.3.3.42b	
UE capability container	<u>OP</u>			
≥UE radio access capability	<u> </u>		UE radio	
			access	
			capability	
III and a company of the	OMP		10.3.3.42	Although this IE is not always
≥UE radio access capability extension	<u>ӨМ</u> Р		UE radio	Although this IE is not always required, the need has been
extension			access capability	set to MP to align with the
			extension	ASN.1
			10.3.3.42a	AON.1
Non RRC IEs			10.0.0.124	
Radio Bearer IEs				
Predefined configuration status	OP		Predefined	
information			configuration	
			status	
			information	
			10.3.4.5a	
Other Information elements				
UE system specific capability	OP	1 to		
		<maxsyste< td=""><td></td><td></td></maxsyste<>		
		mCapabilit		
>Inter-RAT UE radio access	MP	y>	Inter-RAT	
	IMP		UE radio	
capability			access	
			capability	
			10.3.8.7	
Failure cause	OP		Failure	Diagnostics information related
i andio oddoo			cause	to an earlier handover to
			10.3.3.13	UTRAN request
Protocol error information	CV-ProtErr		Protocol	
			error	
			information	
			10.3.8.12	

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

NOTE: The above table does not need to reflect the order of the information elements in the actual encoded message. The order, that is reflected in the ASN.1, should be chosen in a manner that avoids that network nodes need to perform reordering of information elements.

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# CR-Form-v7 CHANGE REQUEST Record to the control of the control o

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•	Α				Release: ₩		
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Reason for change:		E requirements on the INTER RAT H					bilities
	UEs	that do not require ently not required to	compresse	d mode to	o perform inte		ents are
Summary of change	e:	ollowing changes a	re introduce	d in this (	CR		
	UE ra	dio access capabil	ities within t	he INTER	RAT HAND	OVER message	<u>9</u>
		the tabular of the dio access capabil					
	th	arification is added e mandatory IE UE ot really required					
	Repor	ting of measureme	ents that ma	y require	compressed	<u>mode</u>	
	R/ nc	arification is added AT measurements of apply for UEs that easurents	if no compr	essed mo	ode pattern is	configured for i	t does
Consequences if not approved:	within result	E requirements on the INTER RAT H in failure of the ha	ANDOVER ndover to U	message TRAN	remains amb	oiguous which n	nay

#### not report certain measurements

Clauses affected:	₩ 8	3.1.1	6.3, 8.6.7.6, 10.2.16d, 14.12.4.1
Other specs affected:	₩ ₩	X X X	Other core specifications # Test specifications O&M Specifications
Other comments:	ж		

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

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

#### 8.1.16 Inter RAT handover information transfer



Figure 8.1.16-1: Inter RAT handover information transfer, normal flow

#### 8.1.16.1 General

The inter RAT handover information transfer procedure is used by the UE to convey RRC information needed for inter RAT handover to UTRAN.

#### 8.1.16.2 Initiation

If:

- a radio access technology other than UTRA, e.g. GSM, using radio access technology-specific procedures, orders the UE to provide the INTER RAT HANDOVER INFO message; or
- a radio access technology other than UTRA, e.g. GSM, using radio access technology-specific procedures, configures the UE to send the INTER RAT HANDOVER INFO message upon system specific conditions not involving an explicit order e.g. early classmark sending upon entering connected mode; or
- while in connected mode using another radio access technology, the inter RAT handover info changes compared to what has previously been sent via the other radio access technology:

#### the UE shall:

1> initiate the inter RAT handover information transfer procedure.

To determine if the inter RAT handover info has changed compared to what has previously been sent, the UE shall:

- 1> store the information last sent in the variable INTER\_RAT\_HANDOVER\_INFO\_TRANSFERRED;
- 1> if this variable has not yet been set:
  - 2> not initiate the inter RAT handover information transfer procedure due to change of inter RAT handover info.

NOTE: Currently neither the UE security information nor the predefined configuration status information change while in connected mode using GSM radio access technology.

### 8.1.16.3 INTER RAT HANDOVER INFO message contents to set

The UE shall:

- 1> include the IE "Predefined configuration status information" and the IE "UE security information";
- 1> include the <u>IE "UE capability container"</u>, <u>containing the IE "UE radio access capability"</u> and the IE "UE radio access capability extension" in accordance with the following:
  - 2> if the UE supports multiple UTRA FDD Frequency Bands; or
  - 2> if the UE supports a single UTRA FDD Frequency Band different from 2100 MHz:

- 3> include the IE "UE radio access capability", excluding IEs "RF capability FDD" and "Measurement capability";
- 3> include the IE "UE radio access capability extension", including the IEs "RF capability FDD extension" and the "Measurement capability extension" associated with each supported UTRA FDD frequency band indicated in the IE "Frequency band".

#### 2> else:

- 3> include the IE "UE radio access capability", including the IEs "RF capability FDD" and "Measurement capability" associated with the 2100 MHz UTRA FDD frequency band-:
- 3> include the IE "UE radio access capability extension", including the IEs "RF capability FDD extension" and the "Measurement capability extension" associated with each supported UTRA FDD frequency band indicated in the IE "Frequency band".
- 1> initiate the transfer of the INTER RAT HANDOVER INFO message via the other radio access technology, using radio access technology-specific procedures;
- 1> store the IE "Predefined configuration status information", the IE "UE security information", the IE "UE radio access capability" and the IE "UE radio access capability extension", if included in the INTER RAT HANDOVER MESSAGE, in variable INTER\_RAT\_HANDOVER\_INFO\_TRANSFERRED;
- 1> and the procedure ends.

## 8.6.7.6 Inter-RAT reporting quantity

If the IE "Inter-RAT reporting quantity" is received by the UE, the UE shall:

1> store the content of the IE to the variable MEASUREMENT\_IDENTITY.

If the IE "Inter-RAT measurement quantity" is received and CHOICE system is GSM, the UE shall check each quantity in the GSM choice. The UE shall include measured results in MEASUREMENT REPORT as specified in the IE "Inter-RAT reporting quantity" with the following restrictions:

- 1> if the UE has not confirmed the BSIC of the measured cell:
  - 2> if no compressed mode pattern sequence specified with measurement purpose "Initial BSIC identification" is active and according to its capabilities the UE requires compressed mode to measure this, the UE is not required to include the "inter-RAT cell id" nor "Observed time difference to GSM cell" in the IE "Inter-RAT measured results list", when a MEASUREMENT REPORT is triggered.
- 1> if the UE has confirmed the BSIC of the measured cell, then:
  - 2> if no compressed mode pattern sequence specified with measurement purpose "Initial BSIC identification" nor "BSIC re-confirmation" is active and according to its capabilities the UE requires compressed mode to measure this, the UE is not required to include the "inter-RAT cell id" nor "Observed time difference to GSM cell" in the IE "Inter-RAT measured results", when a MEASUREMENT REPORT is triggered. If no compressed mode pattern sequence with measurement purpose "GSM carrier RSSI measurements" is active and according to its capabilities the UE requires compressed mode to measure this, the UE may include "inter-RAT cell id" or "Observed time difference to GSM cell" in MEASUMENT REPORT without "GSM carrier RSSI" even if it is defined in the IE "Inter-RAT reporting quantity".
- 1> if the IE "UTRAN estimated quality" is set to "TRUE":
  - 2> ignore that IE.
- 1> if IE "Observed time difference to GSM cell" is set to "TRUE":
  - 2> include optional IE "Observed time difference to GSM cell" with the value set to the time difference to that GSM cell for the GSM cells that have a BSIC that is "verified", and that match any of the BCCH ARFCN and BSIC combinations in the list of inter-RAT cells that the UE has received in IE "Inter-RAT cell info list". Observed time difference to GSM cells with "non-verified" BSIC shall not be included.
- 1> if IE "GSM Carrier RSSI" is set to "TRUE":
  - 2> include optional IE "GSM Carrier RSSI" with a value set to the measured RXLEV to that GSM cell in IE "Inter-RAT measured results list". If no compressed mode pattern sequence specified with measurement purpose "GSM carrier RSSI measurements" is active and according to its capabilities the UE requires compressed mode to measure this, the UE is not required to include the "GSM carrier RSSI" in the IE " Inter-RAT measured results list ", when a MEASUREMENT REPORT is triggered.
- 1> if the BSIC of reported GSM cell is "verified":
  - 2> set the CHOICE BSIC to "Verified BSIC" and IE "inter-RAT cell id" to the value that GSM cell had in the IE "Inter-RAT cell info list".
- 1> if the BSIC of reported GSM cell is "non-verified":
  - 2> set the CHOICE BSIC to "Non verified BSIC" and the IE "BCCH ARFCN" to the value of that GSM cells ARFCN.

The requirements for a cell to be considered "verified" or "non-verified" can be found in [19].

## 10.2.16d INTER RAT HANDOVER INFO

This message is sent by the UE via another radio access technology to provide information to the target RNC when preparing for a handover to UTRAN.

RLC-SAP: N/A (Sent through a different RAT)

Logical channel: N/A (Sent through a different RAT)

Direction: UE  $\rightarrow$  UTRAN

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
Radio Bearer IEs				
Predefined configuration status information	OP		Predefined configuration status information 10.3.4.5a	
UE Information elements				
UE security information	OP		UE security information 10.3.3.42b	
UE capability container	<u>OP</u>			
≥UE radio access capability	<u> </u>		UE radio access capability 10.3.3.42	
≥UE radio access capability extension	<u>ӨМ</u> Р		UE radio access capability extension 10.3.3.42a	Although this IE is not always required, the need has been set to MP to align with the ASN.1

#### 14.12.4.0a INTER RAT HANDOVER INFO

This RRC message is sent between network nodes to transfer information relevant for the target RNC when preparing for handover to UTRAN.

Direction: source RNC/RAT→target RAT

The message is exactly the same as the INTER RAT HANDOVER INFO defined in subclause 10.2.16d

#### 14.12.4.1 INTER RAT HANDOVER INFO WITH INTER RAT CAPABILITIES

This RRC message is sent between network nodes when preparing for an inter RAT handover to UTRAN.

Direction: source RAT→target RNC

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
UE Information elements				
UE security information	OP		UE security information 10.3.3.42b	
UE capability container	<u>OP</u>			
≥UE radio access capability	<u> </u>		UE radio access capability 10.3.3.42	
≥UE radio access capability extension	<u> </u>		UE radio access capability extension 10.3.3.42a	Although this IE is not always required, the need has been set to MP to align with the ASN.1
Non RRC IEs				
Radio Bearer IEs				
Predefined configuration status information	OP		Predefined configuration status information 10.3.4.5a	
Other Information elements				
UE system specific capability	OP	1 to <maxsyste mCapabilit y&gt;</maxsyste 		
>Inter-RAT UE radio access capability	MP		Inter-RAT UE radio access capability 10.3.8.7	
Failure cause	OP		Failure cause 10.3.3.13	Diagnostics information related to an earlier handover to UTRAN request
Protocol error information	CV-ProtErr		Protocol error information 10.3.8.12	

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

NOTE: The above table does not need to reflect the order of the information elements in the actual encoded message. The order, that is reflected in the ASN.1, should be chosen in a manner that avoids that network nodes need to perform reordering of information elements.

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CR-Form-v7

# CHANGE REQUEST

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		be found	in 3GPP <u>TF</u>	R 21.900.						Rel-5	•	ease 5)	
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Reason for char	nge											cess capa	abilities
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		1.11	- 414 -1				- ممراء	-l - 4 -		!	D A	T	

UEs that do not require compressed mode to perform inter RAT measurents are currently not required to report certain measurements

Summary of change: # The following changes are introduced in this CR

UE radio access capabilities within the INTER RAT HANDOVER message

- In the tabular of the INTER RAT HANDOVER message the need of IE UE radio access capability extensions is changed to MP to align with the ASN.1
- Clarification is added that the UE shall include valid capability information in the mandatory IE UE radio access capabilities even when this information is not really required

Reporting of measurements that may require compressed mode

Clarification is added that the statement that UEs need not report certain inter RAT measurements if no compressed mode pattern is configured for it does not apply for UEs that do not require compressed mode to perform such measurents

Consequences if not approved:

# The UE requirements on setting the contents of the UE radio access capabilities within the INTER RAT HANDOVER message remains ambiguous which may result in failure of the handover to UTRAN

UEs that do not require compressed mode to perform inter RAT measurents may

#### not report certain measurements

Clauses affected:	₩ 8	3.1.1	6.3, 8.6.7.6, 10.2.16d, 14.12.4.1
Other specs affected:	₩ ₩	X X X	Other core specifications # Test specifications O&M Specifications
Other comments:	ж		

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

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

#### 8.1.16 Inter RAT handover information transfer



Figure 8.1.16-1: Inter RAT handover information transfer, normal flow

#### 8.1.16.1 General

The inter RAT handover information transfer procedure is used by the UE to convey RRC information needed for inter RAT handover to UTRAN.

#### 8.1.16.2 Initiation

If:

- a radio access technology other than UTRA, e.g. GSM, using radio access technology-specific procedures, orders the UE to provide the INTER RAT HANDOVER INFO message; or
- a radio access technology other than UTRA, e.g. GSM, using radio access technology-specific procedures, configures the UE to send the INTER RAT HANDOVER INFO message upon system specific conditions not involving an explicit order e.g. early classmark sending upon entering connected mode; or
- while in connected mode using another radio access technology, the inter RAT handover info changes compared to what has previously been sent via the other radio access technology:

#### the UE shall:

1> initiate the inter RAT handover information transfer procedure.

To determine if the inter RAT handover info has changed compared to what has previously been sent, the UE shall:

- 1> store the information last sent in the variable INTER\_RAT\_HANDOVER\_INFO\_TRANSFERRED;
- 1> if this variable has not yet been set:
  - 2> not initiate the inter RAT handover information transfer procedure due to change of inter RAT handover info.

NOTE: Currently neither the UE security information nor the predefined configuration status information change while in connected mode using GSM radio access technology.

### 8.1.16.3 INTER RAT HANDOVER INFO message contents to set

The UE shall:

- 1> include the IE "Predefined configuration status information" and the IE "UE security information";
- 1> include the <u>IE "UE capability container"</u>, <u>containing the IE "UE radio access capability"</u> and the IE "UE radio access capability extension" in accordance with the following:
  - 2> if the UE supports multiple UTRA FDD Frequency Bands; or
  - 2> if the UE supports a single UTRA FDD Frequency Band different from 2100 MHz:

- 3> include the IE "UE radio access capability", excluding IEs "RF capability FDD" and "Measurement capability";
- 3> include the IE "UE radio access capability extension", including the IEs "RF capability FDD extension" and the "Measurement capability extension" associated with each supported UTRA FDD frequency band indicated in the IE "Frequency band".

#### 2> else:

- 3> include the IE "UE radio access capability", including the IEs "RF capability FDD" and "Measurement capability" associated with the 2100 MHz UTRA FDD frequency band-:
- 3> include the IE "UE radio access capability extension", including the IEs "RF capability FDD extension" and the "Measurement capability extension" associated with each supported UTRA FDD frequency band indicated in the IE "Frequency band".
- 1> initiate the transfer of the INTER RAT HANDOVER INFO message via the other radio access technology, using radio access technology-specific procedures;
- 1> store the IE "Predefined configuration status information", the IE "UE security information", the IE "UE radio access capability" and the IE "UE radio access capability extension", if included in the INTER RAT HANDOVER MESSAGE, in variable INTER\_RAT\_HANDOVER\_INFO\_TRANSFERRED;
- 1> and the procedure ends.

## 8.6.7.6 Inter-RAT reporting quantity

If the IE "Inter-RAT reporting quantity" is received by the UE, the UE shall:

1> store the content of the IE to the variable MEASUREMENT\_IDENTITY.

If the IE "Inter-RAT measurement quantity" is received and CHOICE system is GSM, the UE shall check each quantity in the GSM choice. The UE shall include measured results in MEASUREMENT REPORT as specified in the IE "Inter-RAT reporting quantity" with the following restrictions:

- 1> if the UE has not confirmed the BSIC of the measured cell:
  - 2> if no compressed mode pattern sequence specified with measurement purpose "Initial BSIC identification" is active and according to its capabilities the UE requires compressed mode to measure this, the UE is not required to include the "inter-RAT cell id" nor "Observed time difference to GSM cell" in the IE "Inter-RAT measured results list", when a MEASUREMENT REPORT is triggered.
- 1> if the UE has confirmed the BSIC of the measured cell, then:
  - 2> if no compressed mode pattern sequence specified with measurement purpose "Initial BSIC identification" nor "BSIC re-confirmation" is active and according to its capabilities the UE requires compressed mode to measure this, the UE is not required to include the "inter-RAT cell id" nor "Observed time difference to GSM cell" in the IE "Inter-RAT measured results", when a MEASUREMENT REPORT is triggered. If no compressed mode pattern sequence with measurement purpose "GSM carrier RSSI measurements" is active and according to its capabilities the UE requires compressed mode to measure this, the UE may include "inter-RAT cell id" or "Observed time difference to GSM cell" in MEASUMENT REPORT without "GSM carrier RSSI" even if it is defined in the IE "Inter-RAT reporting quantity".
- 1> if the IE "UTRAN estimated quality" is set to "TRUE":
  - 2> ignore that IE.
- 1> if IE "Observed time difference to GSM cell" is set to "TRUE":
  - 2> include optional IE "Observed time difference to GSM cell" with the value set to the time difference to that GSM cell for the GSM cells that have a BSIC that is "verified", and that match any of the BCCH ARFCN and BSIC combinations in the list of inter-RAT cells that the UE has received in IE "Inter-RAT cell info list". Observed time difference to GSM cells with "non-verified" BSIC shall not be included.
- 1> if IE "GSM Carrier RSSI" is set to "TRUE":
  - 2> include optional IE "GSM Carrier RSSI" with a value set to the measured RXLEV to that GSM cell in IE "Inter-RAT measured results list". If no compressed mode pattern sequence specified with measurement purpose "GSM carrier RSSI measurements" is active and according to its capabilities the UE requires compressed mode to measure this, the UE is not required to include the "GSM carrier RSSI" in the IE " Inter-RAT measured results list ", when a MEASUREMENT REPORT is triggered.
- 1> if the BSIC of reported GSM cell is "verified":
  - 2> set the CHOICE BSIC to "Verified BSIC" and IE "inter-RAT cell id" to the value that GSM cell had in the IE "Inter-RAT cell info list".
- 1> if the BSIC of reported GSM cell is "non-verified":
  - 2> set the CHOICE BSIC to "Non verified BSIC" and the IE "BCCH ARFCN" to the value of that GSM cells ARFCN.

The requirements for a cell to be considered "verified" or "non-verified" can be found in [19].

## 10.2.16d INTER RAT HANDOVER INFO

This message is sent by the UE via another radio access technology to provide information to the target RNC when preparing for a handover to UTRAN.

RLC-SAP: N/A (Sent through a different RAT)

Logical channel: N/A (Sent through a different RAT)

Direction: UE  $\rightarrow$  UTRAN

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
Radio Bearer IEs				
Predefined configuration status information	OP		Predefined configuration status information 10.3.4.5a	
UE Information elements				
UE security information	OP		UE security information 10.3.3.42b	
UE capability container	<u>OP</u>			
≥UE radio access capability	<u> </u>		UE radio access capability 10.3.3.42	
≥UE radio access capability extension	<u>ӨМ</u> Р		UE radio access capability extension 10.3.3.42a	Although this IE is not always required, the need has been set to MP to align with the ASN.1

#### 14.12.4.0a INTER RAT HANDOVER INFO

This RRC message is sent between network nodes to transfer information relevant for the target RNC when preparing for handover to UTRAN.

Direction: source RNC/RAT→target RAT

The message is exactly the same as the INTER RAT HANDOVER INFO defined in subclause 10.2.16d

#### 14.12.4.1 INTER RAT HANDOVER INFO WITH INTER RAT CAPABILITIES

This RRC message is sent between network nodes when preparing for an inter RAT handover to UTRAN.

Direction: source RAT→target RNC

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
UE Information elements				
UE security information	OP		UE security information 10.3.3.42b	
UE capability container	<u>OP</u>			
≥UE radio access capability	<u> </u>		UE radio access capability 10.3.3.42	
≥UE radio access capability extension	<u> </u>		UE radio access capability extension 10.3.3.42a	Although this IE is not always required, the need has been set to MP to align with the ASN.1
Non RRC IEs				
Radio Bearer IEs				
Predefined configuration status information	OP		Predefined configuration status information 10.3.4.5a	
Other Information elements				
UE system specific capability	OP	1 to <maxsyste mCapabilit y&gt;</maxsyste 		
>Inter-RAT UE radio access capability	MP		Inter-RAT UE radio access capability 10.3.8.7	
Failure cause	OP		Failure cause 10.3.3.13	Diagnostics information related to an earlier handover to UTRAN request
Protocol error information	CV-ProtErr		Protocol error information 10.3.8.12	

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

NOTE: The above table does not need to reflect the order of the information elements in the actual encoded message. The order, that is reflected in the ASN.1, should be chosen in a manner that avoids that network nodes need to perform reordering of information elements.

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*		25.331	CR 1511	жr	ev .	<b>.</b> #	Current vers	ion: <b>3.11.</b>	<b>0</b> #
For <b>HELF</b>	on u	sing this fo	rm, see bottom o	of this pag	e or loo	k at the	pop-up text	over the # s	ymbols.
Proposed cha	ange a	affects:	UICC apps#	М	E X R	adio Ad	cess Networ	k Core N	Network
Title:	ж	Correctio	n to RRC conne	ction proc	edure				
Source:	$\mathfrak{H}$	TSG-RAN	NWG2						
Work item co	do. ¥	TEI					Date: ₩	25/06/2002	
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			itorial modification		-,		R99	(Release 1999	
		Detailed ex	planations of the a	bove cate	gories ca	an	Rel-4	(Release 4)	•
		be found in	3GPP TR 21 900				Rel-5	(Release 5)	

#### Reason for change: ₩

1. Incorrect indentation in subclause 8.1.3.8 prevents the bullets that follow from being performed.

Rel-6

(Release 6)

- 2. Since the RRC CONNECTION REJECT message includes the IE "RRC transaction identifier", this message will be stored in the table "Accepted transactions" or "Rejected transactions" in the variable TRANSACTIONS. So when UE processes this message, the corresponding entry in the variable TRANSACTIONS should be deleted.
- 3. When the UE ignores the TRANSPORT FORMAT COMBINATION CONTROL message received on UM RLC, the entry for the TRANSPORT FORMAT COMBINATION CONTROL message in the table "Accepted transactions" in the variable TRANSACTIONS should be deleted.

## Summary of change: ₩

- 1. The indentation is changed so that the bullets that follow can be correctly performed.
- 2. The corresponding entry for the RRC CONNECTION REJECT message is deleted from the table in the variable TRANSACTIONS in subclause 8.1.3.9 and 8.1.3.10.
- 3. The entry for the TRANSPORT FORMAT COMBINATION CONTROL message is deleted from the table "Accepted transactions" in the variable TRANSACTIONS in subclause 8.2.5.4 Invalid configuration.

#### Isolated Impact Change Analysis.

Impacted functionality: RRC connection procedure.

Correction to a function where specification was not complete. The change has isolated impact to the UE; the UTRAN is not concerned by this change.

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

Consequences if not approved:

# Incorrect UE behaviors are expected. Incorrect indentation prevents the UE from re-transmitting the RRC CONNECTION REQUEST message for the mentioned situation. As a result the RRC connection will not be established if this situation happens.

Clauses affected:	<b>8.3.1.8, 8.3.1.9, 8.3.1.10, 8.2.5.4</b>							
Other specs affected:	Y N  X Other core specifications   Test specifications   O&M Specifications							
Other comments:	<b>x</b>							

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

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

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

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

- 1> clear the entry for the RRC CONNECTION SETUP message in the table "Rejected transactions" in the variable TRANSACTIONS and proceed as below.
- 1> if If the UE receives an RRC CONNECTION SETUP message which contains an IE "Initial UE identity" with a value which is identical to the value of the variable INITIAL\_UE\_IDENTITY; and
- 1> the RRC CONNECTION SETUP message contained a configuration the UE does not support; and/or
- 1> the variable UNSUPPORTED\_CONFIGURATION becomes set to TRUE due to the received RRC CONNECTION SETUP message; and/or
- the variable INVALID\_CONFIGURATION becomes set to TRUE due to the received RRC CONNECTION SETUP message:

the UE shall:

- 1> clear the entry for the RRC CONNECTION SETUP message in the table "Accepted transactions" in the variable TRANSACTIONS and proceed as below;
- 1> if If V300 is equal to or smaller than N300:
  - 21> set the variable PROTOCOL\_ERROR\_INDICATOR to TRUE;
  - 21> set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
  - 21> perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13; and
  - 21> apply the given Access Service Class when accessing the RACH;
  - 21> submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
  - 21> increment counter V300; and
  - 21> restart timer T300 when the MAC layer indicates success or failure in transmitting the message.
- $\rightarrow$  if If V300 is greater than N300:
  - 21> enter idle mode;
  - 21> perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
  - 21> consider the RRC establishment procedure to be unsuccessful;
  - $\frac{21}{}$  the procedure ends.

## 8.1.3.9 Reception of an RRC CONNECTION REJECT message by the UE

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

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

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

1> clear the entry for the RRC CONNECTION REJECT message in the table "Accepted transactions" in the variable TRANSACTIONS;

- 1> if the IE "wait time" <> '0'; and
- 1> if the IE "frequency info" is present and:
  - 2> if V300 is equal to or smaller than N300:
    - 3> initiate cell selection on the designated UTRA carrier;
    - 3> after having selected and camped on a cell:
      - 4> set CFN in relation to SFN of current cell according to subclause 8.5.15;
      - 4> set the contents of the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
      - 4> perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
      - 4> transmit an RRC CONNECTION REQUEST message on the uplink CCCH;
      - 4> reset counter V300:
      - 4> start timer T300 when the MAC layer indicates success or failure in transmitting the message;
      - 4> disable cell reselection to original carrier until the time stated in the IE "wait time" has elapsed;
    - 3> if a cell selection on the designated carrier fails:
      - 4> wait for the time stated in the IE "wait time";
      - 4> set CFN in relation to SFN of current cell according to subclause 8.5.15;
      - 4> set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
      - 4> perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
      - 4> then submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH of the original serving cell;
      - 4> increment counter V300;
      - 4> restart timer T300 when the MAC layer indicates success or failure to transmit the message;
  - 2> if V300 is greater than N300:
    - 3> enter idle mode;
    - 3> perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
    - 3> consider the RRC establishment procedure to be unsuccessful;
    - 3> the procedure ends.
- 1> if the IE "inter-RAT info" is present and:
  - 2> if V300 is equal to or smaller than N300:
    - 3> perform cell selection in the designated system;
    - 3> delay cell reselection to the original system until the time stated in the IE " wait time" has elapsed.
    - 3> if cell selection in the designated system fails:
      - 4> wait at least the time stated in the IE "wait time";
      - 4> set CFN in relation to SFN of current cell according to subclause 8.5.15;
      - 4> set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.2.

- 4> perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
- 4> then submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
- 4> increment counter V300:
- 4> restart timer T300 when the MAC layer indicates success or failure to transmit the message;
- 2> if V300 is greater than N300:
  - 3> enter idle mode;
  - 3> perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
  - 3> consider the RRC establishment procedure to be unsuccessful;
  - 3> the procedure ends.
- 1> If neither the IEs "frequency info" nor "inter-RAT info" are present and:
  - 2> if V300 is equal to or smaller than N300:
    - 3> wait at least the time stated in the IE "wait time";
    - 3> set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.2;
    - 3> perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
    - 3> submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
    - 3> increment counter V300;
    - 3> restart timer T300 when the MAC layer indicates success or failure to transmit the message;
  - 2> if V300 is greater than N300:
    - 3> enter idle mode:
    - 3> perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
    - 3> consider the RRC establishment procedure to be unsuccessful;
    - 3> the procedure ends.
- 1> if the IE "wait time" = '0':
  - 2> enter idle mode;
  - 2> perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
  - 2> consider the RRC establishment procedure to be unsuccessful;
  - 2> the procedure ends.

## 8.1.3.10 Invalid RRC CONNECTION REJECT message

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

The UE shall:

- 1> clear the entry for the RRC CONNECTION REJECT message in the table "Rejected transactions" in the variable TRANSACTIONS;
- 1> if V300 is equal to or smaller than N300:
  - 2> set the variable PROTOCOL\_ERROR\_INDICATOR to TRUE;
  - 2> set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
  - 2> perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
  - 2> submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
  - 2> increment counter V300;
  - 2> restart timer T300 when the MAC layer indicates success or failure to transmit the message.
- 1> if V300 is greater than N300:
  - 2> enter idle mode;
  - 2> perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
  - 2> consider the procedure to be successful;
  - 2> the procedure ends.

### 8.2.5.4 Invalid configuration

If the variable INVALID\_CONFIGURATION is set to TRUE due to the received TRANSPORT FORMAT COMBINATION CONTROL message the UE shall:

- 1> if the TRANSPORT FORMAT COMBINATION CONTROL message was received on AM RLC:
  - 2> keep the TFC subset existing before the TRANSPORT FORMAT COMBINATION CONTROL message was received;
  - 2> transmit a TRANSPORT FORMAT COMBINATION CONTROL FAILURE message on the DCCH using AM RLC;
  - 2> set the IE "RRC transaction identifier" in the TRANSPORT FORMAT COMBINATION CONTROL FAILURE message to the value of "RRC transaction identifier" in the entry for the TRANSPORT FORMAT COMBINATION CONTROL message in the table "Accepted transactions" in the variable TRANSACTIONS; and
  - 2> clear that entry;
  - 2> set the IE "failure cause" to "invalid configuration";
  - 2> when the TRANSPORT FORMAT COMBINATION CONTROL FAILURE message has been submitted to lower layers for transmission the procedure ends.
- 1> if the TRANSPORT FORMAT COMBINATION CONTROL message was received on UM RLC:
  - $2\!\!>\!$  ignore the TRANSPORT FORMAT COMBINATION CONTROL message
  - 2> clear the entry for the TRANSPORT FORMAT COMBINATION CONTROL message in the table "Accepted transactions" in the variable TRANSACTIONS.

₩ A

Use one of the following categories:

**B** (addition of feature),

**D** (editorial modification)

be found in 3GPP TR 21.900.

**C** (functional modification of feature)

Detailed explanations of the above categories can

F (correction)

Category:

										CR-Form-v7
CHANGE REQUEST										
*		25.331	CR	1512	жrev	_	¥	Current version	on: <b>4.5.0</b>	æ
For <b>HELP</b> or	n us	ing this for	m, see	e bottom of t	this page (	or look	at th	ne pop-up text o	over the 光 sy	mbols.
Proposed chang	je a	ffects:	JICC a	иррѕЖ	ME[	X Ra	adio <i>A</i>	access Network	Core N	etwork
Title:	ж	Correction	n to RF	RC connecti	on proced	ure				
Source:	#	TSG-RAN	WG2							
Work item code:	<b>: #</b>	TEI						Date: ₩	25/06/2002	

Reason for change: ₩ 1. Incorrect indentation in subclause 8.1.3.8 prevents the bullets that follow from

**A** (corresponds to a correction in an earlier release)

being performed. 2. Since the RRC CONNECTION REJECT message includes the IE "RRC

Release: # Rel-4

2

R96

R97

R98

R99

Rel-4

Rel-5

Rel-6

Use <u>one</u> of the following releases: (GSM Phase 2)

(Release 1996)

(Release 1997)

(Release 1998)

(Release 1999)

(Release 4)

(Release 5)

(Release 6)

transaction identifier", this message will be stored in the table "Accepted transactions" or "Rejected transactions" in the variable TRANSACTIONS. So when UE processes this message, the corresponding entry in the variable TRANSACTIONS should be deleted.

3. When the UE ignores the TRANSPORT FORMAT COMBINATION CONTROL message received on UM RLC, the entry for the TRANSPORT FORMAT COMBINATION CONTROL message in the table "Accepted transactions" in the variable TRANSACTIONS should be deleted.

Summary of change: ₩

- 1. The indentation is changed so that the bullets that follow can be correctly performed.
- 2. The corresponding entry for the RRC CONNECTION REJECT message is deleted from the table in the variable TRANSACTIONS in subclause 8.1.3.9 and 8.1.3.10.
- 3. The entry for the TRANSPORT FORMAT COMBINATION CONTROL message is deleted from the table "Accepted transactions" in the variable TRANSACTIONS in subclause 8.2.5.4 Invalid configuration.

**Isolated Impact Change Analysis.** 

Impacted functionality: RRC connection procedure.

Correction to a function where specification was not complete. The change has isolated impact to the UE; the UTRAN is not concerned by this change.

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

Consequences if not approved:

Incorrect indentation prevents the UE from re-transmitting the RRC CONNECTION REQUEST message for the mentioned situation. As a result the RRC connection will not be established if this situation happens.

Clauses affected:	<b>8.3.1.8</b> , <b>8.3.1.9</b> , <b>8.3.1.10</b> , <b>8.2.5.4</b>								
Other specs affected:	Y N  X Other core specifications Test specifications O&M Specifications								
Other comments:	*								

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

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

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

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

- 1> clear the entry for the RRC CONNECTION SETUP message in the table "Rejected transactions" in the variable TRANSACTIONS and proceed as below;
- 1> if If the UE receives an RRC CONNECTION SETUP message which contains an IE "Initial UE identity" with a value which is identical to the value of the variable INITIAL\_UE\_IDENTITY; and
- 1> the RRC CONNECTION SETUP message contained a configuration the UE does not support; and/or
- 1> the variable UNSUPPORTED\_CONFIGURATION becomes set to TRUE due to the received RRC CONNECTION SETUP message; and/or
- 1> the variable INVALID\_CONFIGURATION becomes set to TRUE due to the received RRC CONNECTION SETUP message:

the UE shall:

- 1> clear the entry for the RRC CONNECTION SETUP message in the table "Accepted transactions" in the variable TRANSACTIONS and proceed as below;
- 1> if If V300 is equal to or smaller than N300:
  - 21> set the variable PROTOCOL\_ERROR\_INDICATOR to TRUE;
  - 21> set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
  - 21> perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13; and
  - 21> apply the given Access Service Class when accessing the RACH;
  - 21> submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
  - 21> increment counter V300; and
  - 21> restart timer T300 when the MAC layer indicates success or failure in transmitting the message.
- 1 > if If V300 is greater than N300:
  - $2\underline{1}$ > enter idle mode;
  - 21> perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
  - 21> consider the RRC establishment procedure to be unsuccessful;
  - $\frac{21}{}$  the procedure ends.

## 8.1.3.9 Reception of an RRC CONNECTION REJECT message by the UE

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

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

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

1> clear the entry for the RRC CONNECTION REJECT message in the table "Accepted transactions" in the variable TRANSACTIONS;

- 1> if the IE "wait time" <> '0'; and
- 1> if the IE "frequency info" is present and:
  - 2> if V300 is equal to or smaller than N300:
    - 3> initiate cell selection on the designated UTRA carrier;
    - 3> after having selected and camped on a cell:
      - 4> set CFN in relation to SFN of current cell according to subclause 8.5.15;
      - 4> set the contents of the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
      - 4> perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
      - 4> transmit an RRC CONNECTION REQUEST message on the uplink CCCH;
      - 4> reset counter V300:
      - 4> start timer T300 when the MAC layer indicates success or failure in transmitting the message;
      - 4> disable cell reselection to original carrier until the time stated in the IE "wait time" has elapsed;
    - 3> if a cell selection on the designated carrier fails:
      - 4> wait for the time stated in the IE "wait time";
      - 4> set CFN in relation to SFN of current cell according to subclause 8.5.15;
      - 4> set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
      - 4> perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
      - 4> then submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH of the original serving cell;
      - 4> increment counter V300;
      - 4> restart timer T300 when the MAC layer indicates success or failure to transmit the message;
  - 2> if V300 is greater than N300:
    - 3> enter idle mode;
    - 3> perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
    - 3> consider the RRC establishment procedure to be unsuccessful;
    - 3> the procedure ends.
- 1> if the IE "inter-RAT info" is present and:
  - 2> if V300 is equal to or smaller than N300:
    - 3> perform cell selection in the designated system;
    - 3> delay cell reselection to the original system until the time stated in the IE " wait time" has elapsed.
    - 3> if cell selection in the designated system fails:
      - 4> wait at least the time stated in the IE "wait time";
      - 4> set CFN in relation to SFN of current cell according to subclause 8.5.15;
      - 4> set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.2.

- 4> perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
- 4> then submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
- 4> increment counter V300:
- 4> restart timer T300 when the MAC layer indicates success or failure to transmit the message;
- 2> if V300 is greater than N300:
  - 3> enter idle mode;
  - 3> perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
  - 3> consider the RRC establishment procedure to be unsuccessful;
  - 3> the procedure ends.
- 1> If neither the IEs "frequency info" nor "inter-RAT info" are present and:
  - 2> if V300 is equal to or smaller than N300:
    - 3> wait at least the time stated in the IE "wait time";
    - 3> set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.2;
    - 3> perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
    - 3> submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
    - 3> increment counter V300;
    - 3> restart timer T300 when the MAC layer indicates success or failure to transmit the message;
  - 2> if V300 is greater than N300:
    - 3> enter idle mode:
    - 3> perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
    - 3> consider the RRC establishment procedure to be unsuccessful;
    - 3> the procedure ends.
- 1> if the IE "wait time" = '0':
  - 2> enter idle mode;
  - 2> perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
  - 2> consider the RRC establishment procedure to be unsuccessful;
  - 2> the procedure ends.

## 8.1.3.10 Invalid RRC CONNECTION REJECT message

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

The UE shall:

- 1> clear the entry for the RRC CONNECTION REJECT message in the table "Rejected transactions" in the variable TRANSACTIONS;
- 1> if V300 is equal to or smaller than N300:
  - 2> set the variable PROTOCOL\_ERROR\_INDICATOR to TRUE;
  - 2> set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
  - 2> perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
  - 2> submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
  - 2> increment counter V300;
  - 2> restart timer T300 when the MAC layer indicates success or failure to transmit the message.
- 1> if V300 is greater than N300:
  - 2> enter idle mode;
  - 2> perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
  - 2> consider the procedure to be successful;
  - 2> the procedure ends.

#### 8.2.5.4 Invalid configuration

If the variable INVALID\_CONFIGURATION is set to TRUE due to the received TRANSPORT FORMAT COMBINATION CONTROL message the UE shall:

- 1> if the TRANSPORT FORMAT COMBINATION CONTROL message was received on AM RLC:
  - 2> keep the TFC subset existing before the TRANSPORT FORMAT COMBINATION CONTROL message was received;
  - 2> transmit a TRANSPORT FORMAT COMBINATION CONTROL FAILURE message on the DCCH using AM RLC;
  - 2> set the IE "RRC transaction identifier" in the TRANSPORT FORMAT COMBINATION CONTROL FAILURE message to the value of "RRC transaction identifier" in the entry for the TRANSPORT FORMAT COMBINATION CONTROL message in the table "Accepted transactions" in the variable TRANSACTIONS; and
  - 2> clear that entry;
  - 2> set the IE "failure cause" to "invalid configuration";
  - 2> when the TRANSPORT FORMAT COMBINATION CONTROL FAILURE message has been submitted to lower layers for transmission the procedure ends.
- 1> if the TRANSPORT FORMAT COMBINATION CONTROL message was received on UM RLC or TM RLC:
  - 2> ignore the TRANSPORT FORMAT COMBINATION CONTROL message.
  - 2> clear the entry for the TRANSPORT FORMAT COMBINATION CONTROL message in the table "Accepted transactions" in the variable TRANSACTIONS.

Date: # 25/06/2002

Rel-5

Use <u>one</u> of the following releases: (GSM Phase 2)

(Release 1996)

(Release 1997)

(Release 1998)

(Release 1999)

(Release 4)

(Release 5)

(Release 6)

Release: #

2

R96

R97

R98

R99

Rel-4

Rel-5

Rel-6

CHANCE DECLIECT										
CHANGE REQUEST										
ж	25.331 CR 1513	ж								
For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the \$\mathbb{X}\$ syn  Proposed change affects: UICC apps\$\mathbb{X}  ME \bold X  Radio Access Network  \text{Core Ne}										
Title:	★ Correction to RRC connection procedure									
Source:	# TSG-RAN WG2									

Reason for change: # 1. Incorrect indentation in subclause 8.1.3.8 prevents the bullets that follow from being performed.

**A** (corresponds to a correction in an earlier release)

Use one of the following categories:

**C** (functional modification of feature)

Detailed explanations of the above categories can

**B** (addition of feature),

**D** (editorial modification)

be found in 3GPP TR 21.900.

F (correction)

- 2. Since the RRC CONNECTION REJECT message includes the IE "RRC transaction identifier", this message will be stored in the table "Accepted transactions" or "Rejected transactions" in the variable TRANSACTIONS. So when UE processes this message, the corresponding entry in the variable TRANSACTIONS should be deleted.
- 3. When the UE ignores the TRANSPORT FORMAT COMBINATION CONTROL message received on UM RLC, the entry for the TRANSPORT FORMAT COMBINATION CONTROL message in the table "Accepted transactions" in the variable TRANSACTIONS should be deleted.

## Summary of change: ₩

Category:

- 1. The indentation is changed so that the bullets that follow can be correctly performed.
- 2. The corresponding entry for the RRC CONNECTION REJECT message is deleted from the table in the variable TRANSACTIONS in subclause 8.1.3.9 and 8.1.3.10.
- 3. The entry for the TRANSPORT FORMAT COMBINATION CONTROL message is deleted from the table "Accepted transactions" in the variable TRANSACTIONS in subclause 8.2.5.4 Invalid configuration.

#### **Isolated Impact Change Analysis.**

Impacted functionality: RRC connection procedure.

Correction to a function where specification was not complete. The change has isolated impact to the UE; the UTRAN is not concerned by this change.

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

Consequences if not approved:

Incorrect indentation prevents the UE from re-transmitting the RRC CONNECTION REQUEST message for the mentioned situation. As a result the RRC connection will not be established if this situation happens.

Clauses affected:	<b>8.3.1.8</b> , <b>8.3.1.9</b> , <b>8.3.1.10</b> , <b>8.2.5.4</b>								
Other specs affected:	Y N  X Other core specifications Test specifications O&M Specifications								
Other comments:	*								

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

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

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

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

- 1> clear the entry for the RRC CONNECTION SETUP message in the table "Rejected transactions" in the variable TRANSACTIONS and proceed as below;
- 1> if If the UE receives an RRC CONNECTION SETUP message which contains an IE "Initial UE identity" with a value which is identical to the value of the variable INITIAL\_UE\_IDENTITY; and
- 1> the RRC CONNECTION SETUP message contained a configuration the UE does not support; and/or
- 1> the variable UNSUPPORTED\_CONFIGURATION becomes set to TRUE due to the received RRC CONNECTION SETUP message; and/or
- 1> the variable INVALID\_CONFIGURATION becomes set to TRUE due to the received RRC CONNECTION SETUP message:

the UE shall:

- 1> clear the entry for the RRC CONNECTION SETUP message in the table "Accepted transactions" in the variable TRANSACTIONS and proceed as below;
- 1> if If V300 is equal to or smaller than N300:
  - 21> set the variable PROTOCOL\_ERROR\_INDICATOR to TRUE;
  - 21> set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
  - 2½ perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13; and
  - 21> apply the given Access Service Class when accessing the RACH;
  - 21> submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
  - 21> increment counter V300; and
  - 21> restart timer T300 when the MAC layer indicates success or failure in transmitting the message.
- 1 > if If V300 is greater than N300:
  - $2\underline{1}$ > enter idle mode;
  - 21> perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
  - 21> consider the RRC establishment procedure to be unsuccessful;
  - 21> the procedure ends.

## 8.1.3.9 Reception of an RRC CONNECTION REJECT message by the UE

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

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

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

1> clear the entry for the RRC CONNECTION REJECT message in the table "Accepted transactions" in the variable TRANSACTIONS;

- 1> if the IE "wait time" <> '0'; and
- 1> if the IE "frequency info" is present and:
  - 2> if V300 is equal to or smaller than N300:
    - 3> initiate cell selection on the designated UTRA carrier;
    - 3> after having selected and camped on a cell:
      - 4> set CFN in relation to SFN of current cell according to subclause 8.5.15;
      - 4> set the contents of the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
      - 4> perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
      - 4> transmit an RRC CONNECTION REQUEST message on the uplink CCCH;
      - 4> reset counter V300:
      - 4> start timer T300 when the MAC layer indicates success or failure in transmitting the message;
      - 4> disable cell reselection to original carrier until the time stated in the IE "wait time" has elapsed;
    - 3> if a cell selection on the designated carrier fails:
      - 4> wait for the time stated in the IE "wait time";
      - 4> set CFN in relation to SFN of current cell according to subclause 8.5.15;
      - 4> set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
      - 4> perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
      - 4> then submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH of the original serving cell;
      - 4> increment counter V300;
      - 4> restart timer T300 when the MAC layer indicates success or failure to transmit the message;
  - 2> if V300 is greater than N300:
    - 3> enter idle mode;
    - 3> perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
    - 3> consider the RRC establishment procedure to be unsuccessful;
    - 3> the procedure ends.
- 1> if the IE "inter-RAT info" is present and:
  - 2> if V300 is equal to or smaller than N300:
    - 3> perform cell selection in the designated system;
    - 3> delay cell reselection to the original system until the time stated in the IE " wait time" has elapsed.
    - 3> if cell selection in the designated system fails:
      - 4> wait at least the time stated in the IE "wait time";
      - 4> set CFN in relation to SFN of current cell according to subclause 8.5.15;
      - 4> set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.2.

- 4> perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
- 4> then submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
- 4> increment counter V300:
- 4> restart timer T300 when the MAC layer indicates success or failure to transmit the message;
- 2> if V300 is greater than N300:
  - 3> enter idle mode;
  - 3> perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
  - 3> consider the RRC establishment procedure to be unsuccessful;
  - 3> the procedure ends.
- 1> If neither the IEs "frequency info" nor "inter-RAT info" are present and:
  - 2> if V300 is equal to or smaller than N300:
    - 3> wait at least the time stated in the IE "wait time";
    - 3> set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.2;
    - 3> perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
    - 3> submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
    - 3> increment counter V300;
    - 3> restart timer T300 when the MAC layer indicates success or failure to transmit the message;
  - 2> if V300 is greater than N300:
    - 3> enter idle mode:
    - 3> perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
    - 3> consider the RRC establishment procedure to be unsuccessful;
    - 3> the procedure ends.
- 1> if the IE "wait time" = '0':
  - 2> enter idle mode;
  - 2> perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
  - 2> consider the RRC establishment procedure to be unsuccessful;
  - 2> the procedure ends.

## 8.1.3.10 Invalid RRC CONNECTION REJECT message

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

The UE shall:

- 1> clear the entry for the RRC CONNECTION REJECT message in the table "Rejected transactions" in the variable TRANSACTIONS;
- 1> if V300 is equal to or smaller than N300:
  - 2> set the variable PROTOCOL\_ERROR\_INDICATOR to TRUE;
  - 2> set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
  - 2> perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
  - 2> submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
  - 2> increment counter V300;
  - 2> restart timer T300 when the MAC layer indicates success or failure to transmit the message.
- 1> if V300 is greater than N300:
  - 2> enter idle mode;
  - 2> perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
  - 2> consider the procedure to be successful;
  - 2> the procedure ends.

#### 8.2.5.4 Invalid configuration

If the variable INVALID\_CONFIGURATION is set to TRUE due to the received TRANSPORT FORMAT COMBINATION CONTROL message the UE shall:

- 1> if the TRANSPORT FORMAT COMBINATION CONTROL message was received on AM RLC:
  - 2> keep the TFC subset existing before the TRANSPORT FORMAT COMBINATION CONTROL message was received;
  - 2> transmit a TRANSPORT FORMAT COMBINATION CONTROL FAILURE message on the DCCH using AM RLC;
  - 2> set the IE "RRC transaction identifier" in the TRANSPORT FORMAT COMBINATION CONTROL FAILURE message to the value of "RRC transaction identifier" in the entry for the TRANSPORT FORMAT COMBINATION CONTROL message in the table "Accepted transactions" in the variable TRANSACTIONS; and
  - 2> clear that entry;
  - 2> set the IE "failure cause" to "invalid configuration";
  - 2> when the TRANSPORT FORMAT COMBINATION CONTROL FAILURE message has been submitted to lower layers for transmission the procedure ends.
- 1> if the TRANSPORT FORMAT COMBINATION CONTROL message was received on UM RLC or TM RLC:
  - 2> ignore the TRANSPORT FORMAT COMBINATION CONTROL message.
  - 2> clear the entry for the TRANSPORT FORMAT COMBINATION CONTROL message in the table "Accepted transactions" in the variable TRANSACTIONS.

CHANGE REQUEST  CHANGE REQUEST  # 25.331 CR 1514  # rev													
For HELP on using this form, see bottom of this page or look at the pop-up text over the \$\pi\$ symbols.  Proposed change affects: UICC apps\$\pi\$ ME \textbf{X} Radio Access Network Core Network  Title: \$\pi\$ Correction to the variable TGPS_IDENTITY  Source: \$\pi\$ TSG-RAN WG2  Work item code: \$\pi\$ TEI Date: \$\pi\$ 25/06/2002  Category: \$\pi\$ F Release: \$\pi\$ R99  Use one of the following categories: Use one of the following releases: \$\pi\$ (Correction) A (corresponds to a correction in an earlier release) R96 (Release 1996) B (addition of feature), D (aditorial modification of feature), P89 (Release 1998) R96 (Release 1998) Detailed explanations of the above categories can P81-4 (Release 1999) Detailed explanations of the above categories can P81-4 (Release 1999) Release (Release 6)  Reason for change: \$\pi\$ 1. According to how the variable TGPS IDENTITY is used in the corresponding procedure, all the transmission gap pattern sequences should be included in this variable. Besides, the IE "Current TGPS Status Flag" should be included within each TGPS.  Summary of change: \$\pi\$ 1. IEs in the variable TGPS_IDENTITY are redefined.  Isolated Impact Change Analysis.  Impacted functionality: Transmission gap pattern sequence maintenance.  Correction to a function where specification was not sufficient. The change has isolated impact to the UE; the UTRAN is not concerned by this change.  It would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.  Consequences if not approved:  \$\pi\$ 13.4.25  Other specs \$\pi\$ \pi\$ 13.4.25	CHANGE REQUEST												
Proposed change affects: UICC apps# ME X Radio Access Network Core Network  Title:	*	25.	.331	CR	1514	жrev	-	ж	Curre	nt vers	ion: <b>3.11.0</b>	¥	
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Category:  # F Use one of the following categories: Use one of the following releases: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) P (release 1997) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21,900.  Reason for change:  # 1. According to how the variable TGPS_IDENTITY is used in the corresponding procedure, all the transmission gap pattern sequences should be included in this variable. Besides, the IE "Current TGPS Status Flag" should be included within each TGPS.  Summary of change: # 1. Its in the variable TGPS_IDENTITY are redefined.  Isolated Impact Change Analysis. Impacted functionality: Transmission gap pattern sequence maintenance. Correction to a function where specification was not sufficient. The change has isolated impact to the UE; the UTRAN is not concerned by this change.  It would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.  Consequences if not approved:  # Incerrect UE behaviors are expected. The UE may maintain only one transmission gap pattern sequences would not be performed.  Clauses affected:  # 3.4.25  Other specs # X Other core specifications # Test specifications	Source: #	150	RAN-ن	NWG2									
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) 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.  Reason for change:  ***  1. According to how the variable TGPS_IDENTITY is used in the corresponding procedure, all the transmission gap pattern sequences should be included in this variable. Besides, the IE "Current TGPS Status Flag" should be included within each TGPS.  **Summary of change:**  1. IEs in the variable TGPS_IDENTITY are redefined.  Isolated Impact Change Analysis. Impacted functionality: Transmission gap pattern sequence maintenance. Correction to a function where specification was not sufficient. The change has isolated impact to the UE; the UTRAN is not concerned by this change.  It would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.  Consequences if not approved:  **Incorrect UE behaviors are expected. The UE may maintain only one transmission gap pattern sequences would not be performed.  Clauses affected:  ***  **Incorrect UE behaviors are expected. The UE may maintain only one transmission gap pattern sequences. The compressed mode measurements associated with the missing transmission gap pattern sequences would not be performed.  Clauses affected:  ***  ***  ***  **Incorrect UE behaviors are expected. The UE may maintain only one transmission gap pattern sequence. The compressed mode measurements associated with the missing transmission gap pattern sequences would not be performed.  Clauses affected:  **  **  **  **  **  **  **  **  **	Work item code: 第	TEI							D	ate: ♯	25/06/2002		
Use one of the following categories:    Vise one of the following releases:   F (correction)   2 (GSM Phase 2)     A (corresponds to a correction in an earlier release)   R96 (Release 1996)     B (addition of feature)   R97 (Release 1997)     C (functional modification of feature)   R98 (Release 1998)     D (editorial modification)   R99 (Release 1999)     Detailed explanations of the above categories can Rel-4 (Release 4)     be found in 3GPP TR 21,900.   Rel-5 (Release 5)     Rel-6 (Release 6)	Category: #	F							Relea	ase: #	R99		
A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) P 898 (Release 1998) Release 1999) Detailed explanations of the above categories can Rel-4 (Release 4) Be found in 3GPP TR 21.900.  Reason for change:  **  1. According to how the variable TGPS_IDENTITY is used in the corresponding procedure, all the transmission gap pattern sequences should be included in this variable. Besides, the IE "Current TGPS Status Flag" should be included within each TGPS.  Summary of change:  **  1. IEs in the variable TGPS_IDENTITY are redefined.  Isolated Impact Change Analysis. Impacted functionality: Transmission gap pattern sequence maintenance. Correction to a function where specification was not sufficient. The change has isolated impact to the UE; the UTRAN is not concerned by this change.  It would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.  Consequences if not approved:  **  Incorrect UE behaviors are expected. The UE may maintain only one transmission gap pattern sequence. The compressed mode measurements associated with the missing transmission gap pattern sequences would not be performed.  Clauses affected:  **  1. According to how the variable TGPS_IDENTITY are redefined.  Impacted functionality: Transmission gap pattern sequence maintenance.  Correction to a function where specification was not sufficient. The change has isolated impact to the UE; the UTRAN is not concerned by this change.  It would not affect implementations behaving like indicated in the CR, would affect implementations gap pattern sequence. The UE may maintain only one transmission gap pattern sequence. The compressed mode measurements associated with the missing transmission gap pattern sequences would not be performed.  Clauses affected:  2. Tother core specifications  3. Test specifications						es:			Use	one of		ases:	
B   addition of feature), C (functional modification of feature) R97 (Release 1997) C (functional modification) R99 (Release 1998) D (editorial modification) R99 (Release 1999) Detailed explanations of the above categories can be found in 3GPP TR 21.900. Rel-5 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6) Rel-6 (Rel-6 (Re						ion in an ea	rlier r	elease					
Detailed explanations of the above categories can be found in 3GPP TR 21.900.  Reason for change: # 1. According to how the variable TGPS_IDENTITY is used in the corresponding procedure, all the transmission gap pattern sequences should be included in this variable. Besides, the IE "Current TGPS Status Flag" should be included within each TGPS.  Summary of change: # 1. IEs in the variable TGPS_IDENTITY are redefined.  Isolated Impact Change Analysis.  Impacted functionality: Transmission gap pattern sequence maintenance.  Correction to a function where specification was not sufficient. The change has isolated impact to the UE; the UTRAN is not concerned by this change.  It would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.  Consequences if not approved:  # Incorrect UE behaviors are expected. The UE may maintain only one transmission gap pattern sequence. The compressed mode measurements associated with the missing transmission gap pattern sequences would not be performed.  Clauses affected:  # 13.4.25  Other specs # X Other core specifications # Test specifications			<b>B</b> (addition of feature),						. F	R97 (Release 1997)			
Detailed explanations of the above categories can be found in 3GPP TR 21.900.  Reason for change: # 1. According to how the variable TGPS_IDENTITY is used in the corresponding procedure, all the transmission gap pattern sequences should be included in this variable. Besides, the IE "Current TGPS Status Flag" should be included within each TGPS.  Summary of change: # 1. IEs in the variable TGPS_IDENTITY are redefined.  Isolated Impact Change Analysis.  Impacted functionality: Transmission gap pattern sequence maintenance.  Correction to a function where specification was not sufficient. The change has isolated impact to the UE; the UTRAN is not concerned by this change.  It would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.  Consequences if not approved:  # Incorrect UE behaviors are expected. The UE may maintain only one transmission gap pattern sequences. The compressed mode measurements associated with the missing transmission gap pattern sequences would not be performed.  Clauses affected:  # 13.4.25  Other specs # X Other core specifications # Test specifications										,			
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Reason for change: # 1. According to how the variable TGPS_IDENTITY is used in the corresponding procedure, all the transmission gap pattern sequences should be included in this variable. Besides, the IE "Current TGPS Status Flag" should be included within each TGPS.  Summary of change: # 1. IEs in the variable TGPS_IDENTITY are redefined.  Isolated Impact Change Analysis.  Impacted functionality: Transmission gap pattern sequence maintenance.  Correction to a function where specification was not sufficient. The change has isolated impact to the UE; the UTRAN is not concerned by this change.  It would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.  Consequences if not approved:  ### Incorrect UE behaviors are expected. The UE may maintain only one transmission gap pattern sequence. The compressed mode measurements associated with the missing transmission gap pattern sequences would not be performed.  Clauses affected:  ### 3.4.25  Other specs ### X Other core specifications ### Test specifications		be fo	und in	3GPP <u>1</u>	<u>R 21.900</u> .								
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Clauses affected: # 13.4.25  Other specs # X Other core specifications # Test specifications	not approved:												
Clauses affected: # 13.4.25  YN Other specs # X Other core specifications # Test specifications					with the miss	sing transn	nissic	on ga	<u>p patte</u>	rn seq	uences would n	ot be	
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	affected:												

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

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

## 13.4.25 TGPS\_IDENTITY

This variable contains the configuration parameters of  $\frac{a-all\ the\ configured\ }{a-all\ the\ configured\ }$  compressed mode transmission gap pattern sequence  $\frac{a-all\ the\ configured\ }{a-all\ the\ configured\ }$ 

Information Element/Group	Need	Multi	Type and	Semantics description
<del>name</del>			<del>reference</del>	
TGPS_IDENTITY	<del>OP</del>		<del>DPCH</del>	Information as contained in the
			compressed	IE group "Transmission gap
			<del>mode info</del>	pattern sequence configuration
			<del>10.3.6.33</del>	<del>parameters".</del>
				Cleared when entering UTRA
				RRC connected mode.
				Cleared when leaving UTRA
				RRC connected mode.
Current TGPS Status Flag	MP		Enumerated(	This flag indicates the current
			active,	status of the Transmission
			<del>inactive)</del>	Gap Pattern Sequence,
			·	whether it is active or inactive

Information Element/Group name	Need	<u>Multi</u>	Type and reference	Semantics description
Transmission gap pattern sequence	<u>MPOP</u>	1 to <maxtgp S&gt;</maxtgp 		Cleared when entering UTRA RRC connected mode. Cleared when leaving UTRA RRC connected mode.
>TGPSI	<u>MP</u>		TGPSI 10.3.6.82	
>TGPS Status Flag	<u>MP</u>		Enumerated( activate, deactivate)	This flag indicates whether the Transmission Gap Pattern Sequence shall be activated or deactivated.
> Current TGPS Status Flag	MP		Enumerated( active, inactive)	This flag indicates the current status of the Transmission  Gap Pattern Sequence, whether it is active or inactive
>TGCFN	CV-Active		Integer (0255)	Connection Frame Number of the first frame of the first pattern within the Transmission Gap Pattern Sequence.
>Transmission gap pattern sequence configuration parameters	MP			Information as contained in the IE group "Transmission gap pattern sequence configuration parameters" in IE "DPCH compressed mode info" 10.3.6.33.

<u>Condition</u>	<u>Explanation</u>					
<u>Active</u>	This IE is mandatory present when the value of the IE					
	"TGPS Status Flag" is "Activate" and not needed					
	otherwise.					

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CHANGE REQUEST										
*	25.331	CR	1515	жrev	-	¥	Current ver	sion: 4.	5.0	¥
For <u><b>HELP</b></u> on using this form, see bottom of this page or look at the pop-up text over the <b>#</b> symbols.										
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Reason for change	prod varia	cedure, a	all the trans sides, the II	mission ga	p patt	ern s	NTITY is use sequences sl tus Flag" sho	hould be i	nclude	d in this
Summary of chang	بم £ 1 IF	s in the	variable T0	SPS IDEN	TITY:	are r	edefined			
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		Correction to a function where specification was not sufficient. The change has isolated impact to the UE; the UTRAN is not concerned by this change.								
							like indicate ted function			uld
Consequences if not approved:	com	pressec		surements	asso	ciate	n gap patterned with the m			
Clauses affected:	ж <mark> 13.4</mark>	1.25								
Other specs affected:	Y N  X X	Other Test s	core specif pecification Specificatio	S	Ж					
Other comments:	<b>X</b>									

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

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

# 13.4.25 TGPS\_IDENTITY

This variable contains the configuration parameters of  $\frac{a-all\ the\ configured\ }{a-all\ the\ configured\ }$  compressed mode transmission gap pattern sequence  $\frac{a-all\ the\ configured\ }{a-all\ the\ configured\ }$ 

Information Element/Group	Need	Multi	Type and	Semantics description
<del>name</del>			<del>reference</del>	
TGPS_IDENTITY	<del>OP</del>		DPCH compressed mode info 10.3.6.33	Information as contained in the IE group "Transmission gap pattern sequence configuration parameters". Cleared when entering UTRA RRC connected mode. Cleared when leaving UTRA RRC connected mode.
Current TGPS Status Flag	MP		Enumerated( active, inactive)	This flag indicates the current status of the Transmission Gap Pattern Sequence, whether it is active or inactive

Information Element/Group name	Need	<u>Multi</u>	Type and reference	Semantics description
Transmission gap pattern sequence	MPOP	1 to <maxtgp S&gt;</maxtgp 		Cleared when entering UTRA RRC connected mode. Cleared when leaving UTRA RRC connected mode.
>TGPSI	<u>MP</u>		TGPSI 10.3.6.82	
>TGPS Status Flag	<u>MP</u>		Enumerated( activate, deactivate)	This flag indicates whether the Transmission Gap Pattern Sequence shall be activated or deactivated.
> Current TGPS Status Flag	MP		Enumerated( active, inactive)	This flag indicates the current status of the Transmission Gap Pattern Sequence, whether it is active or inactive
>TGCFN	CV-Active		Integer (0255)	Connection Frame Number of the first frame of the first pattern within the Transmission Gap Pattern Sequence.
>Transmission gap pattern sequence configuration parameters	<u>MP</u>			Information as contained in the IE group "Transmission gap pattern sequence configuration parameters" in IE "DPCH compressed mode info" 10.3.6.33.

<u>Condition</u>	<u>Explanation</u>
<u>Active</u>	This IE is mandatory present when the value of the IE
	"TGPS Status Flag" is "Activate" and not needed
	otherwise.

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		(	CHANG	E REC	UE	ST	•		CR-For	m-v7
*	25.331	CR	1516	<b>≋ rev</b>	-	ж	Current ver	sion: <b>5.1</b>	<b>.0</b>	
For <b>HELP</b> on us	sing this fo	rm, see	bottom of t	his page or	look	at th	e pop-up tex	t over the #	symbols.	
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Title: ♯	Correction	n to the	variable To	GPS_IDEN	TITY					
Source: #	TSG-RAI	N WG2								
Work item code: ₩	TEI						Date: ♯	25/06/20	102	
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Reason for change	prod varia	edure,	all the trans sides, the I	mission ga	p patt	ern s	NTITY is use sequences sl tus Flag" sho	hould be inc	cluded in the	his
Summary of chang	e: # 1. IE	s in the	variable T	GPS IDEN	TITY	are r	edefined.			
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							g like indicate cted function			
Consequences if not approved:	com	presse		asurements	asso	ciate	gap patterned with the m			ар
Clauses affected:	<b>第 13.4</b>	1.25								
Other specs affected:	X X	Other Test s	core specif specification Specificatio	S	*					
Other comments:	ж									

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

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

# 13.4.25 TGPS\_IDENTITY

This variable contains the configuration parameters of  $\frac{a-all\ the\ configured\ }{a-all\ the\ configured\ }$  compressed mode transmission gap pattern sequence  $\frac{a-all\ the\ configured\ }{a-all\ the\ configured\ }$ 

Information Element/Group	Need	Multi	Type and	Semantics description
<del>name</del>			<del>reference</del>	
TGPS_IDENTITY	<del>OP</del>		DPCH	Information as contained in the
			compressed	IE group "Transmission gap
			<del>mode info</del>	pattern sequence configuration
			<del>10.3.6.33</del>	<del>parameters".</del>
				Cleared when entering UTRA
				RRC connected mode.
				Cleared when leaving UTRA
				RRC connected mode.
Current TGPS Status Flag	MP		Enumerated(	This flag indicates the current
			active,	status of the Transmission
			<del>inactive)</del>	Gap Pattern Sequence,
				whether it is active or inactive

Information Element/Group name	Need	<u>Multi</u>	Type and reference	Semantics description
Transmission gap pattern sequence	MPOP	1 to <maxtgp S&gt;</maxtgp 		Cleared when entering UTRA RRC connected mode. Cleared when leaving UTRA RRC connected mode.
>TGPSI	<u>MP</u>		TGPSI 10.3.6.82	
>TGPS Status Flag	<u>MP</u>		Enumerated( activate, deactivate)	This flag indicates whether the Transmission Gap Pattern Sequence shall be activated or deactivated.
> Current TGPS Status Flag	MP		Enumerated( active, inactive)	This flag indicates the current status of the Transmission Gap Pattern Sequence, whether it is active or inactive
>TGCFN	CV-Active		Integer (0255)	Connection Frame Number of the first frame of the first pattern within the Transmission Gap Pattern Sequence.
>Transmission gap pattern sequence configuration parameters	<u>MP</u>			Information as contained in the IE group "Transmission gap pattern sequence configuration parameters" in IE "DPCH compressed mode info" 10.3.6.33.

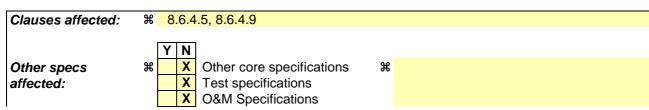
<u>Condition</u>	<u>Explanation</u>
<u>Active</u>	This IE is mandatory present when the value of the IE
	"TGPS Status Flag" is "Activate" and not needed
	otherwise.

# Tdoc #R2-021707

## 3GPP TSG-RAN Meeting #30 Turin, Italy, 24<sup>th</sup>-27<sup>th</sup> June 2002

		CHANG	E REQ	UEST	-		CR-Form-v7
*	25.331	CR 1520	<b>≋ rev</b>	<b>-</b> #	Current version:	3.b.0	¥

For <mark>HELP</mark> on usi	sing this form, see bottom of this page or look a	t the pop-up text over the
Proposed change at	n <b>ffects:</b> UICC apps第 <mark>    ME X</mark> Radio	o Access Network X Core Network
Title: #	missing IEs in RLC info	
Source: #	TSG-RAN WG2	
Work item code: ₩	TEI	Date:
[	F Use one of the following categories: F (correction) A (corresponds to a correction in an earlier release (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900.	Release:   ## R99  Use one of the following releases: 2
Reason for change:	It is currently not well specified what action optional IEs in RLC info is omitted. It is uperally value is unchanged or if the parameter shalternative is not feasible since this mean not turned-off. However this would be beinteroperability problems.  It is also not clear which actions that shall included in a reconfiguration message.	nclear if this means that the prvious hall not be used. It is clear that the first is that options can only be added and neficial to clarify in the spec to avoid
Summary of change	It is clarified that when optional IEs in RL not be used.  It is clarified that if the IE "RLC info" is ab UE shall continue to use the current RLC	sent in a reconfigiration message the
Consequences if not approved:	# It the CR is implemented only in UTRAP Potential misalignment between UTRAN reconfiguration of RLC messages has be communication.  Impacts on T1 test specifications: No in	and UE configuration after a en performed. Potential loss of
Clauses affected:	9° 8645 8640	
Ciauses affected:	<b>8.6.4.5</b> , <b>8.6.4.9</b>	
	YN	



#### Other comments: #

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

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

#### 8.6.4.5 RB information to reconfigure

If the IE "RB information to reconfigure" is included, the UE shall apply the following actions on the radio bearer identified with the value of the IE "RB identity". The UE shall:

- 1> perform the actions for the IE "PDCP info", if present, according to subclause 8.6.4.10, applied for the radio bearer;
- 1> perform the actions for the IE "RLC info", according to subclause 8.6.4.9, applied for the radio bearer;
- 1> if the IE "RLC info" is present:
  - 2> perform the actions for the IE "RLC info", according to subclause 8.6.4.9, applied for the radio bearer.

#### 1> else:

- 2> continue using the current RLC configuration for the radio bearer.
- 1> perform the actions for the IE "RB mapping info", according to subclause 8.6.4.8, applied for the radio bearer:
- 1> if the IE "Downlink RLC mode" in the IE "RLC info" is set to "TM RLC":
  - 2> configure delivery of erroneous SDUs in lower layers according to indication from upper layer [5].
- 1> if the IE "PDCP SN info" is included:
  - 2> perform the actions as specified in subclause 8.6.4.11 applied for the radio bearer.
- 1> if the IE "RB stop/continue" is included; and
  - 2> if the "RB identity" has a value greater than 2; and
    - 3> if the value of the IE "RB stop/continue" is "stop":
      - 4> configure the RLC entity for the radio bearer to stop;
      - 4> set the IE "RB started" in the variable ESTABLISHED\_RABS to "stopped" for that radio bearer.
    - 3> if the value of the IE "RB stop/continue" is "continue":
      - 4> configure the RLC entity for the radio bearer to continue;
      - 4> set the IE "RB started" in the variable ESTABLISHED\_RABS to "started" for that radio bearer.
  - 2> if the IE "RB identity" is set to a value less than or equal to 2:
    - 3> set the variable INVALID\_CONFIGURATION to TRUE.

#### 8.6.4.9 RLC Info

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

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

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

- 1> if the IE "Polling info" is present in the IE "RLC info":
  - 2> for each present IE in the IE "Polling info":
    - 3> configure RLC to use the corresponding function according to value of the IE.
  - 2> for each absent IE in the IE "Polling info":
    - 3> configure RLC to not use the corresponding function.
- 1> if the IE "Polling info" is absent:
  - 2> configure RLC to not use the polling functionality.
- 1> if the IE "Downlink RLC STATUS info" is present in the IE "RLC info" (this IE is present for AM RLC):
  - 2> for each present IE in the IE "Downlink RLC STATUS info":
    - 3> configure RLC to use the corresponding function according to value of the IE.
  - 2> for each absent IE in the IE "Downlink RLC STATUS info":
    - 3> configure RLC to not use the corresponding function.
- 1> if the IE "Transmission RLC discard" is present:
  - 2> configure the discard procedure in RLC according to the IE "Transmission RLC discard"
- 1> if the IE "Transmission RLC discard" is absent (only possible for TM RLC and UM RLC):
  - 2> do not configure SDU discard in RLC;

#### Tdoc # R2-021603

### 3GPP TSG-RAN Meeting #30 Turin, Italy, 24<sup>th</sup>-27<sup>th</sup> June 2002

			(	CHANG	SE REQ	UE	ST	-		CR-Form-v7
Ж		25.331	CR	1521	<b>≋ rev</b>	-	ж	Current version:	4.5.0	Ж
For <u></u>	<mark>IELP</mark> on ι	using this for	m, see	e bottom of	this page or	look	at th	e pop-up text over	the # syr	mbols.

Proposed chang	ge a	affects:	UICC apps#	М	E X Radio A	ccess Netwo	rk X Core Netw	ork
Title:	Ж	missir	ng IEs in RLC info					
Source:	¥	TSG-	RAN WG2					
Work item code	<i>:</i> Ж	TEI				Date: ℜ	2002-06-26	
0-4	مه	Δ.				D-1 99	DEL 4	
Category:	<b>*</b>	Use one F A B C D Detailed	e of the following cate (correction) (corresponds to a co. (addition of feature), (functional modification (editorial modification d explanations of the d in 3GPP TR 21.900	rrection in a on of featur n) above cate	e)	2	the following release (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5) (Release 6)	ses:
Reason for chai	nge	C	t is currently not we optional IEs in RLC	info is om	tted. It is uncle	ear if this mea	ans that the prviou	

value is unchanged or if the parameter shall not be used. It is clear that the first alternative is not feasible since this means that options can only be added and not turned-off. However this would be beneficial to clarify in the spec to avoid interoperability problems. It is also not clear which actions that shall be taken if the IE "RLC info" is not included in a reconfiguration message. Summary of change: ₩ It is clarified that when optional IEs in RLC info is omitted these parameters shall not be used. It is clarified that if the IE "RLC info" is absent in a reconfiguration message the UE shall continue to use the current RLC configuration. It the CR is implemented only in UTRAN, or only in the UE or not at all: Consequences if not approved: Potential misalignment between UTRAN and UE configuration after a reconfiguration of RLC messages has been performed. Potential loss of communication. Impacts on T1 test specifications: No impact foreseen.

Clauses affected:	$\mathfrak{H}$	8.6.4	.5, 8.6.4.9		
Other specs affected:	¥	X	Other core specifications Test specifications O&M Specifications	ж	

#### Other comments: #

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

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

#### 8.6.4.5 RB information to reconfigure

If the IE "RB information to reconfigure" is included, the UE shall apply the following actions on the radio bearer identified with the value of the IE "RB identity". The UE shall:

- 1> perform the actions for the IE "PDCP info", if present, according to subclause 8.6.4.10, applied for the radio bearer;
- 1> perform the actions for the IE "RLC info", according to subclause 8.6.4.9, applied for the radio bearer;
- 1> if the IE "RLC info" is present:
  - 2> perform the actions for the IE "RLC info", according to subclause 8.6.4.9, applied for the radio bearer.

#### 1> else:

- 2> continue using the current RLC configuration for the radio bearer.
- 1> perform the actions for the IE "RB mapping info", according to subclause 8.6.4.8, applied for the radio bearer:
- 1> if the IE "Downlink RLC mode" in the IE "RLC info" is set to "TM RLC":
  - 2> configure delivery of erroneous SDUs in lower layers according to indication from upper layer [5].
- 1> if the IE "PDCP SN info" is included:
  - 2> perform the actions as specified in subclause 8.6.4.11 applied for the radio bearer.
- 1> if the IE "RB stop/continue" is included; and
  - 2> if the "RB identity" has a value greater than 2; and
    - 3> if the value of the IE "RB stop/continue" is "stop":
      - 4> configure the RLC entity for the radio bearer to stop;
      - 4> set the IE "RB started" in the variable ESTABLISHED\_RABS to "stopped" for that radio bearer.
    - 3> if the value of the IE "RB stop/continue" is "continue":
      - 4> configure the RLC entity for the radio bearer to continue;
      - 4> set the IE "RB started" in the variable ESTABLISHED\_RABS to "started" for that radio bearer.
  - 2> if the IE "RB identity" is set to a value less than or equal to 2:
    - 3> set the variable INVALID\_CONFIGURATION to TRUE.

#### 8.6.4.9 RLC Info

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

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

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

- 1> if the IE "Polling info" is present in the IE "RLC info":
  - 2> for each present IE in the IE "Polling info":
    - 3> configure RLC to use the corresponding function according to value of the IE.
  - 2> for each absent IE in the IE "Polling info":
    - 3> configure RLC to not use the corresponding function.
- 1> if the IE "Polling info" is absent:
  - 2> configure RLC to not use the polling functionality.
- 1> if the IE "Downlink RLC STATUS info" is present in the IE "RLC info" (this IE is present for AM RLC):
  - 2> for each present IE in the IE "Downlink RLC STATUS info":
    - 3> configure RLC to use the corresponding function according to value of the IE.
  - 2> for each absent IE in the IE "Downlink RLC STATUS info":
    - 3> configure RLC to not use the corresponding function.
- 1> if the IE "Transmission RLC discard" is present:
  - 2> configure the discard procedure in RLC according to the IE "Transmission RLC discard"
- 1> if the IE "Transmission RLC discard" is absent (only possible for TM RLC and UM RLC):
  - 2> do not configure SDU discard in RLC;

## Tdoc #R2-021604

## 3GPP TSG-RAN Meeting #30 Turin, Italy, 24<sup>th</sup>-27<sup>th</sup> June 2002

			GE REQ				
<b></b>	25.331	CR 1522	<b>≋ rev</b>	¥	Current version:	510	¥
	201001	OIX IOZZ	00101			3.1.0	

Proposed chang	ge a	affects:	UICC apps	€ N	IE 🗶 Radio Ac	cess Networ	k X Core Network
Title:	Ж	missing	g IEs in RLC in	nfo			
Source:	¥	TSG-R	AN WG2				
Work item code	<i>:</i> Ж	TEI				Date: ₩	2002-06-26
Category:	**	Use <u>one</u> F (c A (c B (a C (i D (c Detailed	of the following correction) corresponds to a addition of feature innctional modifications of in 3GPP TR 21	a correction in a re), ication of featuration) the above cate	an earlier release) re)	2 ) R96	REL-5 the following releases: (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5) (Release 6)

Reason for change: #	It is currently not well specified what actions shall be done in the UE when optional IEs in RLC info is omitted. It is unclear if this means that the prvious value is unchanged or if the parameter shall not be used. It is clear that the first alternative is not feasible since this means that options can only be added and not turned-off. However this would be beneficial to clarify in the spec to avoid interoperability problems.  It is also not clear which actions that shall be taken if the IE "RLC info" is not included in a reconfiguration message.
Summary of change: #	It is clarified that when optional IEs in RLC info is omitted these parameters shall not be used.
	It is clarified that if the IE "RLC info" is absent in a reconfiguration message the UE shall continue to use the current RLC configuration.
Consequences if # not approved:	It the CR is implemented only in UTRAN, or only in the UE or not at all: Potential misalignment between UTRAN and UE configuration after a reconfiguration of RLC messages has been performed. Potential loss of communication.
	Impacts on T1 test specifications: No impact foreseen.

Clauses affected:	<b>8</b> 8.6.4.5, 8.6.4.9
	YN
Other specs	
affected:	X Test specifications
	X O&M Specifications
	Odivi Specifications

#### Other comments: #

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

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

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If the IE "RB information to reconfigure" is included, the UE shall apply the following actions on the radio bearer identified with the value of the IE "RB identity". The UE shall:

- 1> perform the actions for the IE "PDCP info", if present, according to subclause 8.6.4.10, applied for the radio bearer;
- 1> perform the actions for the IE "RLC info", according to subclause 8.6.4.9, applied for the radio bearer;
- 1> if the IE "RLC info" is present:
  - 2> perform the actions for the IE "RLC info", according to subclause 8.6.4.9, applied for the radio bearer.

#### 1> else:

- 2> continue using the current RLC configuration for the radio bearer.
- 1> perform the actions for the IE "RB mapping info", according to subclause 8.6.4.8, applied for the radio bearer:
- 1> if the IE "Downlink RLC mode" in the IE "RLC info" is set to "TM RLC":
  - 2> configure delivery of erroneous SDUs in lower layers according to indication from upper layer [5].
- 1> if the IE "PDCP SN info" is included:
  - 2> perform the actions as specified in subclause 8.6.4.11 applied for the radio bearer.
- 1> if the IE "RB stop/continue" is included; and
  - 2> if the "RB identity" has a value greater than 2; and
    - 3> if the value of the IE "RB stop/continue" is "stop":
      - 4> configure the RLC entity for the radio bearer to stop;
      - 4> set the IE "RB started" in the variable ESTABLISHED\_RABS to "stopped" for that radio bearer.
    - 3> if the value of the IE "RB stop/continue" is "continue":
      - 4> configure the RLC entity for the radio bearer to continue;
      - 4> set the IE "RB started" in the variable ESTABLISHED\_RABS to "started" for that radio bearer.
  - 2> if the IE "RB identity" is set to a value less than or equal to 2:
    - 3> set the variable INVALID\_CONFIGURATION to TRUE.

#### 8.6.4.9 RLC Info

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

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

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

- 1> if the IE "Polling info" is present in the IE "RLC info":
  - 2> for each present IE in the IE "Polling info":
    - 3> configure RLC to use the corresponding function according to value of the IE.
  - 2> for each absent IE in the IE "Polling info":
    - 3> configure RLC to not use the corresponding function.
- 1> if the IE "Polling info" is absent:
  - 2> configure RLC to not use the polling functionality.
- 1> if the IE "Downlink RLC STATUS info" is present in the IE "RLC info" (this IE is present for AM RLC):
  - 2> for each present IE in the IE "Downlink RLC STATUS info":
    - 3> configure RLC to use the corresponding function according to value of the IE.
  - 2> for each absent IE in the IE "Downlink RLC STATUS info":
    - 3> configure RLC to not use the corresponding function.
- 1> if the IE "Transmission RLC discard" is present:
  - 2> configure the discard procedure in RLC according to the IE "Transmission RLC discard"
- 1> if the IE "Transmission RLC discard" is absent (only possible for TM RLC and UM RLC):
  - 2> do not configure SDU discard in RLC;