TSG-RAN Meeting #17   *RP-020551*
Biarritz, France, 3 - 6 September 2002

Title: **Agreed CRs (Rel-4 and Rel-5 category A) to TS 25.322**

Source: **TSG-RAN WG2**

Agenda item: **7.2.4**

Doc-1st-	Status-	Spec	CR	Rev	Phase	Subject	Cat	Versio	Versio
R2-022374	agreed	25.322	208		Rel-4	Corrections on indication of SDU transmission result	F	4.5.0	4.6.0
R2-022377	agreed	25.322	209		Rel-5	Corrections on indication of SDU transmission result	A	5.1.0	5.2.0

CR-Form-v7

CHANGE REQUEST

| ⌘ | **25.322** CR **208** | ⌘**rev** | **-** | ⌘ | Current version: | **4.5.0** | ⌘ |

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

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

Title: ⌘	Corrections on indication of SDU transmission result	
Source: ⌘	TSG-RAN WG2	
Work item code: ⌘	TEI4	***Date:*** ⌘ 22/08/2002

Category: ⌘ **F**	***Release:*** ⌘ Rel-4
Use <u>one</u> of the following categories: **F** (correction) **A** (corresponds to a correction in an earlier release) **B** (addition of feature), **C** (functional modification of feature) **D** (editorial modification) Detailed explanations of the above categories can be found in 3GPP <u>TR 21.900</u>.	Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

Reason for change: ⌘	New version of TS 25.322 has not been correctly updated for the agreed CR170 (R2-012628) due to the TS producing error after RAN #14.
Summary of change: ⌘	The editing error has been corrected.
Consequences if not approved: ⌘	Original intention of the agreed CR (R2-012628) can be distorted.

Clauses affected: ⌘	8.1, 11.6.2

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

Other comments: ⌘	

How to create CRs using this form:

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

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

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

8.1   Primitives between RLC and upper layers

The primitives between RLC and upper layers are shown in table 8.1.

Table 8.1: Primitives between RLC and upper layers

Generic Name	Parameters			
	Req.	**Ind.**	**Resp.**	**Conf.**
RLC-AM-DATA	Data, CNF, DiscardReq, MUI, UE-ID type indicator	Data, DiscardInfo	Not Defined	Status, MUI
RLC-UM-DATA	Data, UE-ID type indicator, DiscardReq, MUI	Data	Not Defined	MUI
RLC-TM-DATA	Data, UE-ID type indicator, DiscardReq, MUI	Data, Error_Indicator	Not Defined	MUI
CRLC-CONFIG	E/R, Stop (UM/AM only), Continue (UM/AM only), Ciphering Elements (UM/AM only), TM_parameters (TM only), UM_parameters (UM only), AM_parameters (AM only)	Not Defined	Not Defined	Not Defined
CRLC-SUSPEND (UM/AM only)	N	Not Defined	Not Defined	VT(US) (UM only), VT(S) (AM only)
CRLC-RESUME (UM/AM only)	No Parameter	Not Defined	Not Defined	Not Defined
CRLC-STATUS	Not Defined	EVC	Not Defined	Not Defined

Each Primitive is defined as follows:

RLC-AM-DATA-Req/Ind/Conf

- RLC-AM-DATA-Req is used by upper layers to request transmission of an RLC SDU in acknowledged mode.

- RLC-AM-DATA-Ind is used by the AM RLC entity to deliver to upper layers an RLC SDU that has been transmitted in acknowledged mode and to indicate to upper layers of the discarded RLC SDU in the peer RLC AM entity.

- RLC-AM-DATA-Conf is used by the AM RLC entity to confirm to upper layers the reception of an RLC SDU by the peer-RLC AM entity or to inform the upper layers of a discarded SDU.

RLC-UM-DATA-Req/Ind/Conf

- RLC-UM-DATA-Req is used by upper layers to request transmission of an RLC SDU in unacknowledged mode.

- RLC-UM-DATA-Ind is used by the UM RLC entity to deliver to upper layers an RLC SDU that has been transmitted in unacknowledged mode.

- RLC-UM-DATA-Conf is used by the UM RLC entity to inform the upper layers of a discarded SDU.

RLC-TM-DATA-Req/Ind/Conf

- RLC-TM-DATA-Req is used by upper layers to request transmission of an RLC SDU in transparent mode.

- RLC-TM-DATA-Ind is used by the TM RLC entity to deliver to upper layers an RLC SDU that has been transmitted in transparent mode.

- RLC- ~~UM~~TM-DATA-Conf is used by the ~~UM~~TM RLC entity to inform the upper layers of a discarded SDU.

CRLC-CONFIG-Req

This primitive is used by upper layers to establish, re-establish, release, stop, continue or modify the RLC. Ciphering elements are included for UM and AM operation.

CRLC-SUSPEND-Req/Conf

- CRLC-SUSPEND-Req is used by upper layers to suspend the UM or AM RLC entity.

- CRLC-SUSPEND-Conf is used by the UM or AM RLC entity to confirm that the entity is suspended.

CRLC-RESUME-Req

This primitive is used by upper layers to resume the UM or AM RLC entity after the UM or AM RLC entity has been suspended.

CRLC-STATUS-Ind

It is used by an RLC entity to send status information to upper layers.

11.6.2   Initiation

The Sender shall initiate the SDU discard with explicit signalling procedure if one of the following triggers is detected:

-    "Timer based SDU discard with explicit signalling" is configured, Timer_Discard expires for an SDU, and one or more segments of the SDU have been submitted to lower layer;

-    "Timer based SDU discard with explicit signalling" is configured, Timer_Discard expires for an SDU, and "Send MRW" is configured;

-    "SDU discard after MaxDAT number of transmissions" is configured, and MaxDAT number of transmissions is reached (i.e. $VT(DAT) \geq MaxDAT$) for an AMD PDU.

Upon initiation of the SDU discard with explicit signalling procedure, the Sender shall:

-    if "Timer based SDU discard with explicit signalling" is configured:

-    discard all SDUs up to and including the SDU for which the timer Timer_Discard expired.

-    if "SDU discard after MaxDAT number of retransmissions" is configured:

-    discard all SDUs that have segments in AMD PDUs with "Sequence Number" SN inside the interval $VT(A) \leq SN \leq X$, where X is the value of the "Sequence Number" of the AMD PDU with $VT(DAT) \geq MaxDAT$.

-    if requested:

-    inform the upper layers of the discarded SDUs.

-    if requested:

-    inform the upper layers of the discarded SDUs.

-    discard all AMD PDUs including segments of the discarded SDUs, unless they also carry a segment of a SDU whose timer has not expired;

-    if more than 15 discarded SDUs are to be informed to the Receiver (see subclause 11.6.2.2):

-    if "Send MRW" is not configured:

-    assemble an MRW SUFI with the discard information of the SDUs.

-    otherwise ("Send MRW" is configured):

-    assemble an MRW SUFI with the discard information of the first 15 SDUs; and

-    include the discard information of the rest SDUs in another MRW SUFI which shall be sent by the next SDU discard with explicit signalling procedure (after the current SDU discard with explicit signalling procedure is terminated).

-    otherwise (less than or equal to 15 discarded SDUs are to be informed to the Receiver):

-    assemble an MRW SUFI with the discard information of the SDUs.

-    schedule and submit to lower layer a STATUS PDU/piggybacked STATUS PDU containing the MRW SUFI;

-    if SN_MRW_{LENGTH} in the MRW SUFI $>VT(S)$:

-    update $VT(S)$ to SN_MRW_{LENGTH}.

-    start a timer Timer_MRW according to subclause 9.5.

If a new SDU discard with explicit signalling procedure is triggered when the timer Timer_MRW is active, no new MRW SUFIs shall be sent before the current SDU discard with explicit signalling procedure is terminated by one of the termination criteria specified in subclause 11.6.4.

CR-Form-v7

CHANGE REQUEST

| ⌘ | **25.322** CR **209** | ⌘**rev** | **-** | ⌘ | Current version: | **5.1.0** | ⌘ |

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

Title: ⌘	Corrections on indication of SDU transmission result	
Source: ⌘	TSG-RAN WG2	
Work item code:⌘	TEI4	***Date:*** ⌘ 22/08/2002
Category: ⌘ **A**		***Release:*** ⌘ Rel-5

Use one of the following categories: ***F*** *(correction)* ***A*** *(corresponds to a correction in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)* Detailed explanations of the above categories can be found in 3GPP TR 21.900.	*Use one of the following releases:* *2 (GSM Phase 2)* *R96 (Release 1996)* *R97 (Release 1997)* *R98 (Release 1998)* *R99 (Release 1999)* *Rel-4 (Release 4)* *Rel-5 (Release 5)* *Rel-6 (Release 6)*

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- RLC-UM-DATA-Ind is used by the UM RLC entity to deliver to upper layers an RLC SDU that has been transmitted in unacknowledged mode.

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- RLC-TM-DATA-Req is used by upper layers to request transmission of an RLC SDU in transparent mode.

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- if SN_MRW_{LENGTH} in the MRW SUFI $>VT(S)$:

  - update VT(S) to SN_MRW_{LENGTH}.

- start a timer Timer_MRW according to subclause 9.5.

If a new SDU discard with explicit signalling procedure is triggered when the timer Timer_MRW is active, no new MRW SUFIs shall be sent before the current SDU discard with explicit signalling procedure is terminated by one of the termination criteria specified in subclause 11.6.4.