TSG-RAN Meeting #21 Frankfurt, Germany, 16-19 September 2003

RP-030501

Title: CRs (R'99 and linked Rel-4/Rel-5) to TS 25.321

Source: TSG-RAN WG2

Agenda item: 7.3.3

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.321	176	-	R99	TFCS selection guidelines for TFC Subset	F	3.15.0	3.16.0	R2-032001	TEI
25.321	177	-	Rel-4	TFCS selection guidelines for TFC Subset	Α	4.8.0	4.9.0	R2-032002	TEI
25.321	178	-	Rel-5	TFCS selection guidelines for TFC Subset	Α	5.5.0	5.6.0	R2-032003	TEI

3GPP TSG-RAN2 Meeting #37 Budapest, Hungary, 25th August 2003

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Title:		₩ TF	CS sel	ection	guidelin	es for	TFC Sub	set							
Source:		% RA	N WG	2											
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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.
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11.4 Transport format combination selection in UE

RRC can control the scheduling of uplink data by giving each logical channel a priority between 1 and 8, where 1 is the highest priority and 8 the lowest. TFC selection in the UE shall be done in accordance with the priorities indicated by RRC. Logical channels have absolute priority, i.e. the UE shall maximise the transmission of higher priority data.

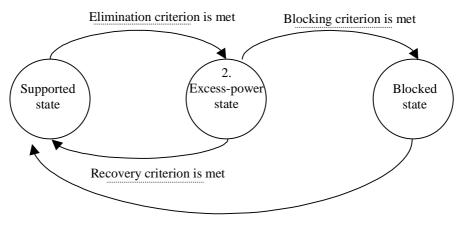
If the uplink TFCS or TFC Subset configured by UTRAN follows the guidelines described in [7] the UE shall perform the TFC selection according to the rules specified below. If these guidelines are not followed then the UE behaviour is not specified.

A given TFC can be in any of the following states:

- Supported state;
- Excess-power state;
- Blocked state.

TDD mode UEs in CELL_FACH state using the USCH transport channel and UEs in CELL_DCH state shall continuously monitor the state of each TFC based on its required transmit power versus the maximum UE transmit power (see [7]). The state transition criteria and the associated requirements are described in [12, 14]. The UE shall consider that the Blocking criterion is never met for TFCs included in the minimum set of TFCs (see [7]).

The following diagram illustrates the state transitions for the state of a given TFC:



Recovery criterion is met

Figure 11.4.1: State transitions for the state of a given TFC

FDD Mode UEs in CELL_FACH state may estimate the channel path loss and set to excess power state all the TFCs requiring more power than the Maximum UE transmitter power (see [7]). All other TFCs shall be set to Supported state.

Every time the set of supported TFCs changes, the available bitrate shall be indicated to upper layers for each logical channel in order to facilitate the adaptation of codec data rates when codecs supporting variable-rate operation are used. The details of the computation of the available bitrate and the interaction with the application layer are not further specified.

Before selecting a TFC, i.e. at every boundary of the shortest TTI, or prior to each transmission on PRACH the set of valid TFCs shall be established. All TFCs in the set of valid TFCs shall:

- 1. belong to the TFCS.
- 1a. not be restricted by higher layer signalling (e.g. TFC Control, see [7]).
- 2. not be in the Blocked state.
- 3. be compatible with the RLC configuration.
- 4. not require RLC to produce padding PDUs (see [6] for definition).

5. not carry more bits than can be transmitted in a TTI (e.g. when compressed mode by higher layer scheduling is used and the presence of compressed frames reduces the number of bits that can be transmitted in a TTI using the Minimum SF configured).

The UE may remove from the set of valid TFCs, TFCs in Excess-power state in order to maintain the quality of service for sensitive applications (e.g. speech). However, this shall not apply to TFCs included in the minimum set of TFCs (see [7]). Additionally, if compressed frames are present within the longest configured TTI to which the next transmission belongs, the UE may remove TFCs from the set of valid TFCs in order to account for the higher power requirements.

The chosen TFC shall be selected from within the set of valid TFCs and shall satisfy the following criteria in the order in which they are listed below:

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- 3. No other TFC shall have a lower bit rate than the chosen TFC.

In FDD mode the above rules for TFC selection in the UE shall apply to DCH, and the same rules shall apply for TF selection on RACH and CPCH.

In TDD mode the above rules for TFC selection in the UE shall apply to DCH and USCH.

3GPP TSG-RAN2 Meeting #37 Budapest, Hungary, 25th August 2003

		CHANG	SE REQ	UEST	Г		CR-Form-V7
*	25.321	CR 177	жrev	- #	Current versi	ion: 4.8.0	¥
For <u>HELP</u> on usi	ing this for	m, see bottom of	this page or	look at th	ne pop-up text	over the % syr	nbols.
Proposed change at	ffects: \	JICC apps ж	ME X] Radio <i>F</i>	Access Networ	k X Core Ne	etwork
Title: 第	TFCS sel	ection guidelines	for TFC Subs	set			
Source: #	RAN WG	2					
Work item code: 第	TEI				Date: ₩	15/08/2003	
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ricason for change.		elines apply to TF		ar about t	whether the TF	OO SEIECTION	
Summary of change	that i	s clarified that the f these are not fol t specified.					
Consequences if not approved:		ork manufacturer oe configured relia		n uncleai	about the type	es of TFC subs	sets that
Clauses affected:	₩ 11.4						
Other specs affected:	Y N X X	Other core spec Test specificatio O&M Specificati	ns	ж			
Other comments:	*						

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3)	 With "track changes" disabled, paste the the clause containing the first piece of containing the change request. 	e entire CR for hanged text. I	rm (use CTRL-A to Delete those parts	select it) into the spe of the specification w	ecification just in front of hich are not relevant to

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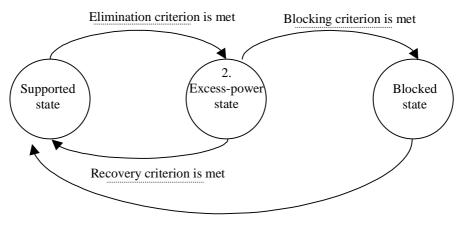
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	CHANGE REQUEST
*	25.321 CR 178
For <u>HELP</u> on u	sing this form, see bottom of this page or look at the pop-up text over the % symbols.
Proposed change a	affects: UICC apps ■ ME X Radio Access Network X Core Network
Title: 第	TFCS selection guidelines for TFC Subset
Source: #	RAN WG2
Work item code: 第	TEI Date: # 15/08/2003
Category:	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) P (editorial modification) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900. Release: % Rel-5 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)
Reason for change Summary of chang	guidelines apply to TFC subsets. ge: ## It was clarified that the TFCS selection guidelines do apply to TFC subsets and that if these are not followed (even in the case of a TFC subset), the UE behavior
Consequences if not approved:	is not specified. **Retwork manufacturers may remain unclear about the types of TFC subsets that can be configured reliably. Impact Analysis: Impact is isolated to the TFCS selection aspect of RRM (UTRAN) UE implementation is not relevant as 25.321 is clear on what it shall do
Clauses affected:	₩ 11.4
Other specs affected:	Y N X Other core specifications X Test specifications O&M Specifications
Other comments:	x

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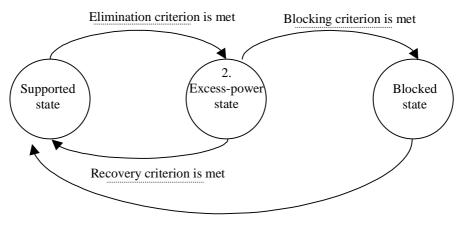
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