TSG RAN Meeting #26   **RP-040446**
Athens, Greece, 8 - 10 December 2004

Title   CR (Rel-6 Category B) to TS25.212 for Introduction of MBMS Soft Combining
Source   TSG RAN WG1
Agenda Item   8.4

RAN1 Tdoc	Spec	CR	Rev	Phase	Cat	Current Version	Subject	Workitem	Remarks
R1-041509	25.212	192	2	Rel-6	B	6.2.0	Introduction of MBMS Soft Combining	MBMS-RAN	

CR-Form-v7.1

CHANGE REQUEST

⌘ **25.212** CR **192** ⌘rev **2** ⌘ Current version: **6.2.0** ⌘

*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: ⌘	Introduction of MBMS Soft Combining
Source: ⌘	RAN WG1
Work item code: ⌘ MBMS-RAN	***Date:*** ⌘ 15/11/2004

Category: ⌘ **B**		***Release:*** ⌘ Rel-6
	Use one of the following categories:	*Use one of the following releases:*
	F (correction)	*Ph2 (GSM Phase 2)*
	A (corresponds to a correction in an earlier release)	*R96 (Release 1996)*
	B (addition of feature),	*R97 (Release 1997)*
	C (functional modification of feature)	*R98 (Release 1998)*
	D (editorial modification)	*R99 (Release 1999)*
	Detailed explanations of the above categories can	*Rel-4 (Release 4)*
	be found in 3GPP TR 21.900.	*Rel-5 (Release 5)*
		Rel-6 (Release 6)
		Rel-7 (Release 7)

Reason for change: ⌘	Supports efficient transmission of S-CCPCH carrying MTCH.
Summary of change: ⌘	1. Describes TFC behavior for S-CCPCH soft combining. 2. Changes the maximum number of CCTrCH of common type for FACH to a UE capability in order to enable soft and selection combining.
Consequences if not approved: ⌘	

Clauses affected: ⌘	Sections 4.3.1a, 4.3.2, 4.2.14.1

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

Other comments: ⌘	

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

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

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be

downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

--[START OF MODIFIED SECTION]--

4.3.2   Transport format detection based on TFCI

If a TFCI is available, then TFCI based detection shall be applicable to all TrCHs within the CCTrCH. The TFCI informs the receiver about the transport format combination of the CCTrCHs. As soon as the TFCI is detected, the transport format combination, and hence the transport formats of the individual transport channels are known.

If higher layers indicate that S-CCPCHs can be soft combined, then the same TFC is used on those S-CCPCHs during the radio frames when soft combining is possible. The UE may therefore detect TFCI on one S-CCPCH to determine the TFC on all S-CCPCHs that can be soft combined. (S-CCPCH soft combining is further specified in [4]).

--[END OF MODIFIED SECTION]--

--[START OF MODIFIED SECTION]--

4.2.14.1   Allowed CCTrCH combinations for one UE

4.2.14.1.1   Allowed CCTrCH combinations on the uplink

A maximum of one CCTrCH is allowed for one UE on the uplink. It can be either:

  1) one CCTrCH of dedicated type;

  2) one CCTrCH of common type.

4.2.14.1.2   Allowed CCTrCH combinations on the downlink

The following CCTrCH combinations for one UE are allowed:

  -   x CCTrCH of dedicated type + y CCTrCH of common type. The allowed combination of CCTrCHs of dedicated and common type are given from UE radio access capabilities. There can be a maximum of~~n~~ one CCTrCH of common type for DSCH. ~~and a~~ The maximum number of ~~one~~ CCTrCHs of common type for FACH is determined from UE capabilities. With one CCTrCH of common type for DSCH, there shall be only one CCTrCH of dedicated type.

  NOTE 1:   There is only one DPCCH in the uplink, hence one TPC bits flow on the uplink to control possibly the different DPDCHs on the downlink, part of the same or several CCTrCHs.

  NOTE 2:   There is only one DPCCH in the downlink, even with multiple CCTrCHs. With multiple CCTrCHs, the DPCCH is transmitted on one of the physical channels of that CCTrCH which has the smallest SF among the multiple CCTrCHs. Thus there is only one TPC command flow and only one TFCI word in downlink even with multiple CCTrCHs.

  NOTE 3:   in the current release, only 1 CCTrCH of dedicated type is supported.

--[END OF MODIFIED SECTION]--