

**TSG-RAN Meeting #11
Palm Springs, CA, USA, 13 - 16 March 2001**

RP-010028

Title: Agreed CRs (Release '99) to TS 25.324

Source: TSG-RAN WG2

Agenda item: 5.2.3

Doc-1st-	Status-	Spec	CR	Rev	Phase	Subject	Cat	Version	Versio
R2-010401	agreed	25.324	007		R99	Corrections	F	3.3.0	3.4.0

3GPP TSG-RAN WG2 Meeting #19
Sofia Antipolis, France, 19-23 February

R2-010401

CR-Form-v3

CHANGE REQUEST

⌘ **25.324 CR 007** ⌘ rev **-** ⌘ Current version: **3.3.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ME/UE Radio Access Network Core Network

Title:	⌘ Corrections		
Source:	⌘ TSG-RAN WG2		
Work item code:	⌘	Date:	⌘ 2001-02-14
Category:	⌘ F	Release:	⌘ R99
Use <u>one</u> of the following categories: F (essential correction) A (corresponds to a correction in an earlier release) B (Addition of feature), C (Functional modification of feature) D (Editorial modification)		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)	
Detailed explanations of the above categories can be found in 3GPP TR 21.900.			

Reason for change:	⌘ Editorial cleanup		
Summary of change:	⌘ - minor editorial corrections ⌘ - addition of message description type "No message" in the scheduling message in order to allow "empty space" within a schedule period		
Consequences if not approved:	⌘ - possibility of misinterpretation of specification text		

Clauses affected:	⌘ 8.2.2.5, 9.2, 10.1, 11.4, 11.8, 11.9		
Other specs Affected:	<input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> 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/3G_Specs/CRs.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://www.3gpp.org/specs/> For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 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.

8.2.2.5 Category

Indicates the category (priority) of the CB message.

Values:

HIGH (CB message is to be broadcast at the earliest opportunity in the reserved CB capacity of the current CB DRX schedule period).

NORMAL (default,)(CB messages to be broadcast according to the associated repetition period).

BACKGROUND (CB message to be broadcast in the CB capacity not occupied by HIGH or NORMAL CB messages within a CB DRX schedule period).

This parameter is described in 3G TS 23.041 [3].

9.2 Generation of Schedule message

NOTE: Principles and examples are described in 3G TR 25.925 [6].

This procedure calculates the CBS schedule periods and assigns BMC messages (i.e. CBS Messages, CBS41 Messages and Schedule Messages) to the CBS schedule periods and gives an indication which of the CTCH Block Sets containing a part of or a complete BMC messages has the status "new".

NOTE: The concatenation function of RLC shall not be applied.

Algorithms used for scheduling are implementation dependent and thus do not need to be specified. Some parameters may be set by CBC or O&M system.

CTCH Block Sets are indicated in a New Message Bitmap IE of BMC Schedule Message as new (bit position of a CTCH Block Set is set to value "1") when one of the following conditions is met:

- The CTCH Block Set contains part of or a complete BMC message which was either not sent during the previous CBS schedule period,
- or sent unscheduled during the preceding CBS schedule period;
- or, the CTCH Block Set is indicated as of free usage, reading advised,
- or it contains the Schedule Message partly or complete of the following CBS schedule period,
- or it contains a CBS41 Message partly or complete.

Other BMC messages sent in the same CBS schedule messages are indicated as "old" (bit position of CTCH Block Set containing this message partly or complete is set to value 0).

The indication "new" is set both for the first transmission of a BMC message in the CBS schedule period or a repetition of it within the CBS schedule period. For CBS41 Messages, repetition is not specified.

The input parameters of the scheduling procedure are set by CBC or RRC or by the O&M system for the BMC.

The CBC input parameters are:

- CB messages (i.e. BMC SDUs),
- Message Identifier per CB message,
- Serial Number per CB message,
- CB repetition period per CB message,
- Number of Broadcast Requested per CB message.

The RRC input parameters are:

- Sizes of CTCH Block Sets,
- Timing of CTCH Block Set sequence.

The O&M (BMC) input parameters are:

- DRX Schedule Period (cell related parameter) requested optionally,
- Reserved CB Capacity (cell related parameter) requested optionally.

10.1 General

A BMC message is equivalent with a BMC PDU. There are three types of BMC messages defined, CBS messages and CBS41 messages, which carry cell broadcast data from higher layer, and *Schedule messages*, which provide information for support of Discontinuous Reception (DRX) of cell broadcast data at the UE.

BMC messages and information elements are specified using the tabular format methodology as specified in TR 25.921, and additional text is describing the encoding.

NOTE: ~~In Release 99, only~~ Only – IEs marked as MP or CV in the "Need" column exists.

BMC messages (i.e. BMC PDUs) specified by tabular format consist of an ordered sequence IE₁,...,IE_n of information element fields.

Let $(A_{1,IE}, \dots, A_{N,IE})$ be the bit string of an information element IE. $A_{1,IE}$ is equal to the leftmost bit of the information element field and $A_{N,IE}$ is equal to the rightmost bit of the information element field.

The bit string of a BMC message is defined as the concatenation $(A_{1,IE1}, \dots, A_{N,IE1}), \dots, (A_{1,IE_n}, \dots, A_{N,IE_n})$ of the bit strings of the IEs maintaining the sequence order.

11.4 Data Coding Scheme

Table 11.4-1: Data Coding Scheme IE

IE/Group name	Need	Multi	Type and reference	Semantics description
Data Coding Scheme	MP		Bitstring(8) 3G TS 23.038 [4] 3G TS 23.041 [3]	Identification of the alphabet/coding and the language applied

11.8 New Message Bitmap

Table 11.8-1: New Message Bitmap IE

Information Element/Group name	Need	Multi	Type and reference	Semantics description
New Message Bitmap	MP		Bitmap(N*8) N = <Length of CBS Schedule Period> div 8, if <“Length of CBS Schedule Period”_mod_8 = 0 then N = “Length of CBS Schedule Period” div 8, else N = “Length of CBS Schedule Period” div 8 + 1. Table 11.8-2	Bitmap indicating CTCH BS which contains new CBS Messages completely or partly

Coding of New Message Bitmap.

Table 11.8-2: Coding of New Message Bitmap IE

CTCH BS index B	CTCH BS index B+1	CTCH BS index B+2	...					1
								2
								...
	...	CTCH BS index E-1	CTCH BS index E	0	0	0	0	n
Legend: B First CTCH BS index of the CBS schedule period, $1 \leq B \leq 256$ E Last CTCH BS index of the CBS schedule period, E = B + Length of CBS Schedule Period – 1								

CTCH BS Index i:

Bit i of the New CBS Message Bitmap refers to the content of CTCH BS index i. Its meaning is as follows:

- 1 The CTCH BS index i contains a BMC Message partly or completely which was either not sent during the previous schedule period, or sent unscheduled during the preceding schedule period; or, the CTCH BS is indicated as of free usage, reading advised; or it contains the Schedule Message partly or complete of the following CBS schedule period, or it contains a CBS41 Message partly or complete. The value is 1 both for the first transmission of a given BMC message in the CBS schedule period or a repetition of it within the CBS schedule period.
- 0 The CTCH BS is such that value 1 is not suitable.

The length of the New Message Bitmap is given by the IE Length of CBS Schedule Period. If it is not a multiple of 8 the remaining bit positions are padded with "0".

11.9 Message Description

Table 11.9-1: Message Description IE

IE/Group Name	Need	Multi	Type and reference	Semantics description
Message Description Type	MP		Enumerated(0..255) Table 11.9-3	
Message ID	CV MDT1		Enumerated (0 .. $2^{16}-1$) 3G TS 23.041 [3]	
Offset to CTCH BS index of first transmission	CV MDT2		Integer (0..255)	

Table 11.9-2: Conditions

Condition	Explanation
MDT1	If Message Description Type = 1 or 5 then: the CB-Message-Id IE is included
MDT2	If Message Description Type = 0 or 4 then: the Offset to CTCH BS index of first transmission IE is included pointing to the CTCH BS index where the BMC message is transmitted the first time within the schedule period.

Table 11.9-3: Encoding of Message Description Type

Value	Explanation
0	Repetition of new BMC message within schedule period
1	New message
2	Reading advised
3	Reading optional
4	Repetition of old BMC message within schedule period
5	Old message (repetition of a message sent in a previous schedule period)
6	Schedule message
7	CBS41 message
8	no message
89 .. 255	Reserved for future use (IEs received with this value will be replaced by value 3 in Release 99)