

Technical Specification Group Services and System Aspects **TSGS#19(03)0087**
Meeting #19, Birmingham, UK, 17 - 20 March 2003

Source: TSG-SA WG4

Title: CRs to TS 26.102 - AMR rate adaptation
(R99, Release 4 and Release 5)

Document for: Approval

Agenda Item: 7.4.3

The following CRs, agreed at the TSG-SA WG4 meeting #25bis, are presented to TSG SA #19 for approval.

Spec	CR	Rev	Phase	Subject	Cat	Vers	WG	Meeting	S4 doc
26.102	013	2	R99	AMR Rate Adaptation of R'99	F	3.3.0	S4	TSG-SA WG4#25bis	S4-030068
26.102	014	3	Rel-4	AMR Rate Adaptation of Rel-4	A	4.0.0	S4	TSG-SA WG4#25bis	S4-030245
26.102	015	2	Rel-5	AMR Rate Adaptation of Rel-5	F	5.1.0	S4	TSG-SA WG4#25bis	S4-030070

7 Uu Interface User Plane (UE)

The interface between the UE AMR speech codec (see 3GPP TS 26.101) and the Radio Access Network is an internal UE interface and is not detailed. The mapping is corresponding to the mapping described in clause 6 for the Iu interface.

Even though the details of Uu interface are not detailed, there are some functional requirements for the UE that need to be considered, when an AMR codec type (i.e. UMTS AMR or UMTS AMR2) is being used in a conversational speech call. These requirements are related to the mapping of AMR Generic frame format handling functions. The requirements are

1. The set of available codec modes (bitrates) that the UE may use are configured by UTRAN. The UE shall select, from the configured set of codec modes, a mode that is supported by the current TX power conditions as defined in 3GPP TS25.133. The highest available mode should be used for best speech quality.
2. The lowest configured codec mode is always to be considered supported.

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CHANGE REQUEST

⌘ **TS 26.102 CR 015** ⌘ rev **2** ⌘ Current version: **5.1.0** ⌘

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:	⌘ AMR Rate Adaptation of Rel-5		
Source:	⌘ TSG SA WG4		
Work item code:	⌘ AMR	Date:	⌘ 18 March 2003
Category:	⌘ F	Release:	⌘ REL-5
	Use <u>one</u> of the following categories:		Use <u>one</u> 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 be found in 3GPP TR 21.900 .		REL-4 (Release 4)
			REL-5 (Release 5)

Reason for change:	⌘ Details of AMR rate adaptation for conversational speech services are not described in detail in any specification.
Summary of change:	⌘ Details of AMR rate adaptation for UE are added to Clause 7.
Consequences if not approved:	⌘ Incorrect implementation of AMR rate adaptation may lead to network problems or speech quality problems.

Clauses affected:	⌘ 7
Other specs affected:	⌘ <input type="checkbox"/> Other core specifications ⌘ <input type="checkbox"/>
	<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://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.

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2. The lowest configured codec mode is always to be considered supported.
3. When the codec mode is being adapted during a call, the used mode should be changed in a step-by-step fashion within the configured set of codec modes, i.e. by stepping one mode up or down within the configured set. This avoids disruptions on AMR decoding in GSM side, if TFO or TrFO operation is ongoing.