

Source: TSG CN WG 1
Title: CR to Rel-4 (with mirror CR) on Work Item TFO-AMR towards 24.008
Agenda item: 8.7
Document for: APPROVAL

Introduction:

This document contains 2 CRs on **Rel-4 (with mirror CR)** to Work Item "TFO-AMR", that have been agreed by **TSG CN WG1**, and are forwarded to TSG CN Plenary meeting #14 for approval.

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level
24.008	480		Rel-4	Correction of default codec selection criterion	F	4.4.0	4.5.0	N1-011458
24.008	481		Rel-5	Correction of default codec selection criterion	A	5.1.0	5.2.0	N1-011459

CHANGE REQUEST

⌘ **24.008 CR 480** ⌘ ev **-** ⌘ Current version: **4.4.0** ⌘

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:	⌘ Correction of default codec selection criterion		
Source:	⌘ Siemens AG		
Work item code:	⌘ TFO-AMR	Date:	⌘ 25.09.01
Category:	⌘ F	Release:	⌘ Rel-4
	<i>Use <u>one</u> of the following categories:</i> 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 .		<i>Use <u>one</u> of the following releases:</i> 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)

Reason for change:	⌘ According to the current wording of subclause 5.2.1.11, if a ME sets up a call in GSM, the Rel-4 network will assume GSM/UMTS dual system support and default UMTS AMR speech version, regardless whether the ME supports UMTS or not.
Summary of change:	⌘ A note is added which clarifies that in case of a call setup in GSM by a R99 ME, the GSM/UMTS dual system support and the default UMTS AMR speech version are determined by the core network only when the radio network initiates intersystem handover to UMTS.
Consequences if not approved:	⌘ The core network comes to a wrong conclusion about the ME's dual system support. This can have negative consequences for network internal decisions, e.g. if the network assumes that it will be possible to switch over to TrFO operation later during the call.

Clauses affected:	⌘ 5.2.1.11		
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://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.

5.2.1.11 Speech Codec Selection

The network can receive *Supported Codec List IE* in call establishment messages from the ME to inform the network of the codec types that it supports.

If the network does not receive *Supported Codec List IE* then default UMTS AMR speech version shall be assumed.

The default UMTS AMR speech version for “R99 UMTS only” terminals is UMTS_AMR. The default UMTS AMR speech version for terminals supporting GSM & UMTS radio accesses and all terminals from Release 4 onwards is UMTS_AMR_2. For further details see 3G TS 26.103.

Note: ‘UMTS_AMR_2’ is fully backward compatible with ‘UMTS_AMR’, therefore if the UE supports ‘UMTS_AMR_2’ and the network is R99 and assumes ‘UMTS_AMR’ then no interworking problems will occur.

The network shall determine the default UMTS AMR speech version by the following:

- i) If no GSM Speech Version codepoints are received in octet 3a etc. of the *Bearer Capabilities IE* then a “UMTS only” terminal is assumed and the default UMTS AMR speech version shall be UMTS_AMR.
- ii) If at least one GSM Speech Version codepoint is received in octet 3a etc. of the *Bearer Capabilities IE* ~~then a terminal~~ and the ME supports ~~ing~~ GSM and UMTS ~~is assumed and~~ then the default UMTS AMR speech version shall be UMTS_AMR_2.

NOTE: In case (ii), if the call is set up in GSM by a R99 ME, call control in the core network may treat the ME as a “GSM only” ME. The default UMTS AMR speech version will only become relevant when an intersystem handover to UMTS is initiated by the radio access network, and can be determined when this procedure is started.

If the *Supported Codec List IE* is received, the network shall select a codec from the list of codecs and indicate this to the ME via RANAP and RRC protocol in NAS Synchronisation Indicator IE. See 3GPP TS 25.413 and 3GPP TS 25.331.

Coding of the codec type (CoID) shall be, as defined in 3GPP 3GPP TS 26.103.

The network shall determine the preference for the selected codec type; codec type prioritisation is not provided by the ME.

The ME shall activate the codec type received in the NAS Synchronisation Indicator IE.

If the mobile station does not receive the NAS Synchronisation Indicator IE (RRC protocol) then it shall assume default UMTS AMR speech version.

For adaptive multirate codec types no indication of subsets of modes is supported in this protocol, from the ME or to the ME. It is a pre-condition that the support of such codec types by the ME implicitly includes all modes defined for that codec type.

CHANGE REQUEST

⌘ **24.008 CR 481** ⌘ ev **-** ⌘ 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:	⌘	Correction of default codec selection criterion	
Source:	⌘	Siemens AG	
Work item code:	⌘	TFO-AMR	Date: ⌘ 25.09.01
Category:	⌘	A	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:	⌘	According to the current wording of subclause 5.2.1.11, if a ME sets up a call in GSM, the Rel-4 network will assume GSM/UMTS dual system support and default UMTS AMR speech version, regardless whether the ME supports UMTS or not.
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Consequences if not approved:	⌘	The core network comes to a wrong conclusion about the ME's dual system support. This can have negative consequences for network internal decisions, e.g. if the network assumes that it will be possible to switch over to TrFO operation later during the call.

Clauses affected:	⌘	5.2.1.11
Other specs affected:	⌘	<input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications
Other comments:	⌘	

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