

Source: TSG-SA WG4

Title: CR to 28.062 on Reference to a deleted TFO message (Release 4)

Document for: Approval

Agenda Item: 7.4.3

The following CR, agreed at the TSG-SA WG4 meeting #17, is presented to TSG SA #12 for approval.

Spec	CR	Rev	Phase	Subject	Cat	Vers	WG	Meeting	S4 doc
28.062	001	1	REL-4	Reference to a deleted TFO message	F	4.0.0	S4	TSG-SA WG4#17	S4-010417

CR-Form-v3

CHANGE REQUEST

⌘ **28.062 CR 001** ⌘ rev **1-** ⌘ Current version: **4.0.0** ⌘

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:	⌘ Reference to deleted TFO message		
Source:	⌘ TSG-SA WG4		
Work item code:	⌘ TFO-AMR	Date:	⌘ 2001-06-08
Category:	⌘ F	Release:	⌘ REL-4
	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) Detailed explanations of the above categories can be found in 3GPP TR 21.900.		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)

Reason for change:	⌘ In the explanation of the notation for the state event matrix a message is referenced which is not any more existing in TFO. In addition, UMTS_AMR_2 is referred in the main body but is missing in Annex F.
Summary of change:	⌘ Remove the reference and add UMTS_AMR_2 codec types in operator's guide.
Consequences if not approved:	⌘ Inconsistent specification

Clauses affected:	⌘ 10.3, F.2.1		
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.

*****First Modified Section*****

10.3 Abbreviations, Definitions, Notations used in the TFO_Protocol Description

The following Abbreviations and Definitions are used in the TFO_Protocol Tables.

Local_Used_Codec (short form: **Luc**) refers to the Speech Codec Type used in the local transcoder and RAN (e.g. GSM_FR, GSM_EFR, GSM_HR, FR_AMR, HR_AMR, UMTS_AMR or UMTS_AMR_2).

Distant_Used_Codec (Duc) refers to the Speech Codec Type used by the distant partner, as reported in TFO_REQ... or TFO_ACK (e.g. GSM_FR, GSM_EFR, GSM_HR, FR_AMR, HR_AMR, UMTS_AMR or UMTS_AMR_2).

All these variables are initialised to **UNKNOWN**, which means that the content of the variables is not defined.

Local_Signature (Lsig) refers to the 8-bit random number in TFO_REQ, which identifies the local TFO_REQ Messages. It is also used in TFO_REQ_L.

Distant_Signature (Dsig) refers to the 8-bit random number as received in TFO_REQ, TFO_REQ_L, TFO_REQ_P, TFO_ACK and TFO_ACK_L. If received in TFO_REQ or TFO_REQ_L and TFO_REQ_P, it should be different from the Local_Signature, otherwise loop back must be assumed (exceptions exist). If received in TFO_ACK or TFO_ACK_L, then it should be identical to the Local_Signature, otherwise the TFO_ACK is not a response to an own TFO_REQ or TFO_REQ_L, but was possibly created during an handover situation.

Local_Channel_Type (LCh) and **Distant_Channel_Type (DCh)** refer to the 8 or 16 kbit/s transparent channel used by the local Transmission process or received through the distant TFO_TRANS.

Error protection and error handling: It is assumed that the defined error protection is strong enough for the error rates encountered on typical transmission links. The few occurring errors are usually all detected and possibly corrected by Rx_TFO, before reported to TFO_Protocol. Therefore TFO_Protocol can rely on the correctness of the received Events. The protocol is, however, "self healing" and will handle the unlikely erroneous Events.

Fast Handover handling: The defined protocol assumes that the new Transcoder, to which the handover is performed, is already in State Wakeup before the A-Interface is switched to that Transcoder. Only then, the TFO Frames can be received and fast handover handling is possible.

Timing: If two Events occur by coincidence at the same time, then they shall be processed in the order given by the tables 19 to 28 (left to right). TFO Messages arrive always some time before the embedding TFO Frame and shall be handled therefore first.

*****Second Modified Section*****

F.2.1 Avoidance of Codec Mode Optimisation

Guideline 2:

If the operator wants to avoid Codec Mode Optimisation after TFO establishment with AMR, then he shall set the "Optimisation Mode" to "No_Change".

Guideline 3:

The operator should configure AMR so that MACS = 4 and the ACS e.g. corresponds to the default sets (10.20, 6.70, 5.90, 4.75 for FR_AMR, and UMTS_AMR and UMTS_AMR_2 and 7.40, 6.70, 5.90, 4.75 for HR_AMR). By this the chance for Inter-PLNM TFO is enhanced.

Other ACSs for FR_AMR, UMTS_AMR, UMTS_AMR_2 and HR_AMR are possible. They should include as many as possible common Codec Modes in the lower, contiguous subsets. In that case Inter-PLNM TFO is not as obvious and may need inter-operator agreements.

Note: the default sets correspond to the ACSs determined by the TFO Decision algorithm, when all Codec Modes of the ACSs are included in the corresponding SCS.

Guideline 4:

The operator should configure AMR so that the ACSs are homogeneous within the whole PLMN (same ACS used in all BSS of a given PLMN for a given Codec Type: UMTS_AMR, UMTS_AMR_2, FR_AMR, HR_AMR). The ACSs of different Codec Types of the AMR Family should contain as many as possible Codec Modes within the common, lower, contiguous subset.

Guideline 5:

If the network is heterogeneous, the operator should choose ACSs so that all resulting Common ACSs are acceptable (see clause 12), with as many as possible Codec Modes within the common, lower, contiguous subset.

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