3GPP TSG-S4 meeting #10
Helsinki, Finland, 28 Feb – 3 Mar 2000

Document   *S4-(00)0141*

3G CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

26.101 CR **003**   Current Version: 3.0.0

3G specification number ↑   *↑ CR number as allocated by 3G support team*

For submission to TSG   SA#7   for approval   **X**   *(only one box should*
list TSG meeting no. here ↑   for information   *be marked with an X)*

Form: 3G CR cover sheet, version 1.0   The latest version of this form is available from: ftp://ftp.3gpp.org/Information/3GCRF-xx.rtf

Proposed change affects: USIM ☐   ME **X**   UTRAN ☐   Core Network ☐
(at least one should be marked with an X)

Source:	Nokia	**Date:** 29-Feb-2000
Subject:	Correction of table indexing for AMR Core Frame class division example	
3G Work item:	AMR	

Category: F Correction   **X**
          A Corresponds to a correction in a 2G specification   ☐
(only one category B Addition of feature   ☐
shall be marked   C Functional modification of feature   ☐
with an X)   D Editorial modification   ☐

Reason for change: Table indexing in the AMR Core Frame class division example uses table indexing starting from 1 while the first index should be 0.

Clauses affected: 4.2.2

Other specs affected:
Other 3G core specifications	☐	→ List of CRs:
Other 2G core specifications	☐	→ List of CRs:
MS test specifications	☐	→ List of CRs:
BSS test specifications	☐	→ List of CRs:
O&M specifications	☐	→ List of CRs:

Other comments: The proposed change consists of four corrected indices and one unrelated corrected typing error.

help.doc

<--------- double-click here for help and instructions on how to create a CR.

4.2.2   AMR Core Frame with speech bits: Class division

The reordered bits are further divided into three indicative classes according to their subjective importance. This class division is only informative and provides supporting information for mapping this generic format into specifics formats. The three different importance classes can then be subject to different error protection in the network

The importance classes are Class A, Class B, and Class C. Class A contains the bits most sensitive to errors and any error in these bits typically results in a corrupted speech frame which should not be decoded without applying appropriate error concealment. This class is protected by the CRC in AMR Auxiliary Information. Classes B and C contain bits where increasing error rates gradually reduce the speech quality, but decoding of an erroneous speech frame is usually possible without annoying artifacts. Class B bits are more sensitive to errors than Class C bits. The importance ordering applies also within the three different classes and there are no significant step-wise changes in subjective importance between neighboring bits at the class borders.

The number of speech bits in each class (Class A, Class B, and Class C) for each AMR mode is shown in Table 2 below. The classification in Table 2 and the importance ordering $d(j)$, together, are sufficient to assign all speech bits to their correct classes. For example, when the AMR codec mode is 4.75, then the Class A bits are $d(0\underline{1})..d(41\underline{2})$, Class B bits are $d(42\underline{3})..d(94\underline{5})$, and there are no Class C bits.