Technical Specification Group Services and System Aspects **TSGS#28(05)0248**
Meeting #28, Quebec, Canada
6-9 June 2005

Source: TSG-SA WG4

Title: CR TS 26.234 on Correction to QoE metrics specification for (Extended) PSS (Release 6)

Document for: Approval

Agenda Item: 7.4.3

The following CR, agreed at the TSG-SA WG4 meeting #35, is presented to TSG SA #28 for approval.

Spec	CR	Rev	Phase	Subject	Cat	Vers	WG	Meeting	S4 doc
26.234	085		Rel-6	Correction to QoE metrics specification for PSS	F	6.3.0	S4	TSG-SA WG4#35	S4-050288

3GPP TSG-SA4 #35 Meeting **S4-050288**
9-13 May 2005, San Diego, CA, U.S.A.

CR-Form-v7

CHANGE REQUEST

⌘ **26.234** **CR** **085** ⌘ **rev** **-** ⌘ Current version: **6.3.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Correction to QoE metrics specification for PSS
Source:	⌘	TSG SA WG4 Codec
Work item code:	⌘	PSSrel6-Stage3
Date:	⌘	06/06/2005
Category:	⌘	**F**
Release:	⌘	Rel-6

Use one of the following categories:
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.

Use one 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)*
Rel-6	*(Release 6)*

Reason for change:	⌘	One technical fix in a QoE metric.
Summary of change:	⌘	A fix in the corruption duration metric.
Consequences if not approved:	⌘	The corruption duration metric is implemented in the wrong way.

Clauses affected:	⌘	11.2.1

Other specs affected:	⌘	Y	N		⌘
			X	Other core specifications	
			X	Test specifications	
			X	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/specs/CR.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.

11.2.1 Corruption duration metric

Corruption duration, M, is the time period from the NPT time of the last good frame before the corruption, to the NPT time of the first subsequent good frame or the end of the reporting period (whichever is sooner). A corrupted frame may either be an entirely lost frame, or a media frame that has quality degradation and the decoded frame is not the same as in error-free decoding. A good frame is a "completely received" frame X that

- either it is a refresh frame (does not reference any previously decoded frames AND where none of the subsequently ~~received~~decoded frames reference any frames decoded prior to X);
- or does not reference any previously decoded frames;
- or references previously decoded "good frames".

"Completely received" means that all the bits are received and no bit error has occurred.

Corruption duration, M, in milliseconds can be calculated as below:

a) M can be derived by the client using the codec layer, in which case the codec layer signals the decoding of a good frame to the client. A good frame could also be derived by error tracking methods, but decoding quality evaluation methods shall not be used.

b) In the absence of information from the codec layer, M should be derived from the NPT time of the last frame before the corruption and N, where N is optionally signalled from server to client and represents the maximum duration between two subsequent refresh frames in milliseconds.

c) In the absence of information from the codec layer and if N is not signalled, then M defaults to ∞ (for video) or to one frame duration (for audio), or the end of the reporting period (whichever is sooner).

The optional parameter N as defined in point b is used with the "Corruption_Duration" parameter in the "3GPP-QoE-Metrics" header. Another optional parameter T is defined to indicate whether the client uses error tracking or not. The value of T shall be set by the client. The syntax for N and T to be included in the "Measure-Spec" (clause 5.3.2.3.1) is as follows:

N = "N" "=" 1*DIGIT

T = "T" "=" "On" / "Off"

The syntax for the "Metrics-Name Corruption_Duration" for the QoE-Feedback header is as defined in clause 5.3.2.3.2

The absence of an event can be reported using the space (SP).

For the "Metrics-Name Corruption_Duration", the "Value" field in 5.3.2.3.2 indicates the corruption duration. The unit of this metrics is expressed in milliseconds. There is the possibility that corruption occurs more than once during a reporting period. In that case the value can occur more than once indicating the number of corruption events.

The value of "Timestamp" is equal to the NPT time of the last good frame inside the reporting period, in playback order, before the occurrence of the corruption, relative to the starting time of the reporting period. If there is no good frame inside the reporting period and before the corruption, the timestamp is set to the starting time of the reporting period.