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TSG-S4#7: September 18-22, 1999, St. Laurent du Var, France

SMG11 371/99

TS 10.76 v1.0.0 (draft) (1999-10)

Technical Specification

SMG11#12

TSGS4#7(99)371

**Digital cellular telecommunications system (Phase 2+);
Noise Suppression for the AMR Codec
Project scheduling and open issues
[GSM 10.76 version 1.0.0]**

TSG-S4#7: September 18-22, 1999, St. Laurent du Var, France

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GSM®
GLOBAL SYSTEM FOR
MOBILE COMMUNICATIONS



European Telecommunications Standards Institute

Reference

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Foreword

This Permanent Document (PD) has been produced by ETSI SMG STC SMG11 for the for the SMG Technical Committee of the European Telecommunications Standards Institute (ETSI).

This PD describes the schedules of the standardisation process for the Noise Suppression feature for the Adaptive Multi Rate Codec and defines open issues. It also lists the necessary amendments to the GSM/DCS phase 2+ specifications for the technical realisation of the work item.

This PD is an informative document resulting from ETSI TC-SMG studies which are not appropriate for European Telecommunication Standard (ETS), Interim European Telecommunication Standard (I-ETS) or ETSI Technical Report (ETR) status.

This is the first draft version of this document.

Introduction

[TBD - section may be deleted]

1 Scope

The purpose of this document is to describe the schedule of the standardisation process for the Noise Suppression feature for the Adaptive Multi Rate Codec and to define open issues that are still under discussion. It also lists the new standards and necessary amendments to the GSM/DCS phase 2+ specifications for the technical realisation of the function.

The new standards and Change Requests (CR) necessary for this feature are listed in clause 9.

2 References

References may be made to:

- a) specific versions of publications (identified by date of publication, edition number, version number, etc.), in which case, subsequent revisions to the referenced document do not apply; or
- b) all versions up to and including the identified version (identified by "up to and including" before the version identity); or
- c) all versions subsequent to and including the identified version (identified by "onwards" following the version identity); or
- d) publications without mention of a specific version, in which case the latest version applies.

A non-specific reference to an ETS shall also be taken to refer to later versions published as an EN with the same number.

2.1 Normative references

- [1] GSM 02.76: " Digital cellular telecommunications system (Phase 2+); Noise Suppression for the AMR Codec; Service Description; Stage 1"

2.2 Informative references

3 Definitions, symbols and abbreviations

3.1 Definitions

[TBD]

3.2 Symbols

[TBD]

3.3 Abbreviations

GSM abbreviations pertinent to this feature are contained within 02.76 [1]. The abbreviations used within other GSM standards documents will be included within GSM 01.04.

4 General

4.1 Outline Description of the Feature

See Stage 1 [1] and [TBD] document(s) for a general description of the Adaptive Multi Rate (AMR) Codec Noise Suppression Feature.

In brief, this feature enhances the quality of GSM speech calls by suppressing, where appropriate, background noise in the input speech signal, if and only if the AMR codec is utilised in support of the call.

4.2 Support of Specification Work

This document is a “living document” and is currently controlled by SMG11. Proposals for change shall be forwarded to SMG11 (editor direct contact details are on the last page) This document should always reflect the latest status of work.

Latest versions of the material are intended to be made available to interested parties within SMG. Specification and Change Request rapporteurs should ensure the latest versions of their material is made available for review and comment by the following mechanisms:

1. ETSI FTP Server (docbox.etsi.fr or docbox.etsi.org) in

/Tech-Org/smg/Document/smg11/smg11_amr_ns -

2. The draft specifications. (Once specifications are approved see
/Tech-Org/smg/Document/smg/specs/Phase2pl/

where all current approved specifications are maintained)

3. Email distribution list: SMG11-NS@LIST.ETSI.FR

5 Requirements

See [1].

6 Functional Description

See [TBD].

7 Technical Realisation and Amendments

7.1 Documentation Structure Overview

Permanent documents used within the AMR Noise Suppression Selection Phase are listed below. These are available on the ETSI FTP site (see Section 4.2 for the address). The most recent SMG11 temporary document numbers are given..

Stage 1 Service Description 02.76 (TD353/99)

Design Constraints (TD369/99)

Selection Phase Deliverables (TD370/99)

Selection Rules (TD368/99)

Processing Functions for the Selection Tests (TD354/99)

Selection Test Plan (TD356/99)

The list of permanent documents for the Characterisation Phase is TBD.

8 Approvals Timeframe

Annex 1 contains the project plan for this feature. The intention is to complete standardisation of this feature so that it becomes part of Release '99.

SMG plenary (SMG26) mandated SMG11 to study the standardisation of an optional Noise Suppression function for the AMR codec.

It is envisaged that standardisation will involve the generation of a new standard and (possibly) the generation of CRs to existing GSM specifications.

8.1 Approvals within STCs

SMG11 Approval of Draft Stage 1 Specification at SMG11 #11 (7-11 June 1999)

SMG1 Presentation of Draft Stage 1 Specification for information, Q3 1999

Presentation of further specifications and allied information [TBD]

9 Specifications for Noise Suppression for the AMR Codec

9.1 New Specifications

Not Complete!

New specifications						
GSM No.	Title	Prime rsp STC	2ndary rsp STC(s)	Presented for info at SMG"	Approved at SMG"	Comments
02.76	Noise Suppression for the AMR Codec; Service Description; Stage 1	SMG11	SMG1	#28		
<i>GSM No.</i>	<i>Title:</i>	<i>Prime rsp. STC:</i>	<i>2ndary rsp. STC(s):</i>	<i>presented for information at SMG#</i>	<i>approved at SMG#</i>	<i>Comments</i>

-	
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PHASE, TASK or DEADLINE	PROVISIONAL DATE
Declaration of intention to submit a candidate	CLOSED
Agree Test Methodology or methodologies	SMG11 #9 - COMPLETED
Access to AMR C code	SMG#28 - COMPLETED
Finalise Design Constraints	Before the start of SMG11#10 - COMPLETED
Final Estimate of total cost	SMG11#11 - COMPLETED
Formal commitment to propose a candidate	During SMG11 #11 - COMPLETED
Requirements set and... - approved by SMGII - approved by SMG	SMG11 #11 - COMPLETED SMG #29 - COMPLETED
Final commitment from proponents to provide funding	SMG#29 - COMPLETED
Final List of experimental conditions	Joint SQ/AMR-NS Meeting 27-29 July
Freeze Selection Rules	August 10 th (with possible exception re. new proposals for using subjective SNR improvement measures - deadline August 15th)
Host, Listening, and Noise labs Identified. Associated contracts finalised	August 20 th
Host labs have access to material (speech and noise)	August 20 th

Freeze Test Plan	September 3 rd
Host Labs complete pre-processing of material	September 10 th
ETSI receive candidates' executables	September 10 th
Candidates send required cross checking data to cross-checking organisation (so that it is received no later than 3 days later)	October 1 st
Candidates send processed material to host labs (so that it is received no later than 3 days later)	October 8 th
Host Labs send 1 st set of material to test houses (so that it is received no later than 3 days later)	October 15 th
Host Labs send final set of material to test houses (so that it is received no later than 3 days later)	October 22 nd
ETSI receives all remaining deliverables from candidates	November 15 th
Run selection test	Results on reflector on December 3 rd
Select a solution - approved by SMG11 - approved by SMG	SMG11 (December 6-10) SMG#31 (February 14-16)
Optimisation	Schedule and scope to be decided
Verification	Schedule and scope to be decided
Final drafting of standard and CRs	Schedule and scope to be decided
Approval of standards and CRs - SMG11 - SMG	SMG11 (24-28 January) SMG#30 (February 14-16)
Characterisation Testing	Schedule and scope to be decided (and is subject to the availability of funding)

History

Document history		
V0.0.1	August 1998	First Draft
V.o.o.2	January 1999	2 nd Draft
V.0.0.3	January 1999	3 rd Draft with updated work plan
V.0.0.4	February 1999	4 th Draft with updated work plan
V.0.0.5	March 1999	5 th Draft with updated work plan
V.0.0.6	April 1999	Editorial changes
V0.0.7	June 1999	Updated work plan and associated dates
V0.0.8	August 1999	Updated work plan and associated dates

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