3GPP TSG SA WG 4 Meeting 115-e TDoc S4-21xxxx

Electronic meeting, 18th – 27th August 2021

**Title: [Draft] Reply LS on new Supplement related to ITU-T Rec P.800 use cases**

**Response to:** [**S4-211069**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_115-e/Docs/S4-211069.zip)

**Source: 3GPP SA4**

**To: ITU-T Study Group 12**

**Cc:**

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**Send any reply LS to: 3GPP Liaisons Coordinator,** **mailto:3GPPLiaison@etsi.org**

**Attachments:**

[EVS-7b, EVS-7c, EVS-8b, EVS-8c, 3GPP TR 26.952, Tdoc S4-21xxxx (Call for labs)]

# 1 Overall description

3GPP SA4 would like to thank ITU-T Study Group 12 for informing about the new P.SUPPL800 work item on ITU-T Rec. P.800 use cases and for inviting us to contribute. SA4 appreciates in particular the intent of SG12 to support our planning of P.800 assessments in IVAS codec standardization. SA4 thinks that the work item in SG12 will be highly relevant as it will give additional guidance to users of Rec. P.800 about its applicability especially in the context of quality evaluations of high-quality monophonic, stereo, and immersive voice and audio signals.

SA4 believes we can contribute relevant Rec. P.800 application examples from EVS codec standardization. In that context, we would like to point to P.800 quality assessments carried out during EVS codec qualification, selection and characterization. The test plans of the tests done for selection and characterization (EVS-8b and EVS-8c), processing plans (Pdoc EVS-7b/c) and 3GPP TR 26.952 containing the corresponding experimental results are attached to this reply LS. In particular, we would like to highlight the use of P.50 MNRU to accommodate the SWB bandwidth, experiments including a network simulator to expose the codec for VoIP testing conditions and listener instructions involving mixed and music material on top of the conventional speech category. An overview of these experiments is provided in the following tables:

Table 1: List of experiments in the EVS codec Selection Tests [EVS-8b]

|  |  |  |  |
| --- | --- | --- | --- |
| **Exp.** | **Content** | **Methodology** | **# of Exp.** |
| N1 | NB clean speech under clean channel condition including input level dependency | ACR | 1 |
| N2 | NB clean speech under impaired channel conditions including delay/jitter profiles | ACR | 1 |
| N3 | NB noisy speech under clean channel condition and impaired channel conditions | DCR | 1 |
| N4 | NB mixed content and music under clean channel condition and impaired channel conditions including delay/jitter profiles | ACR | 1 |
| W1 | WB clean speech under clean channel condition including input level dependency | ACR | 1 |
| W2 | WB clean speech under impaired channel conditions including delay/jitter profiles | ACR | 1 |
| W3 | WB noisy speech under clean channel condition | DCR | 1 |
| W4 | WB noisy speech under impaired channel conditions including delay/jitter profiles | DCR | 1 |
| W5 | WB mixed contents and music under clean channel condition | DCR | 1 |
| W6 | WB mixed contents and music under impaired channel conditions | DCR | 1 |
| W7 | WB mixed contents and music under impaired channel conditions including delay/jitter profiles | DCR | 1 |
| I1 | AMR-WB IO clean speech under clean channel condition including input level dependency | ACR | 1 |
| I2 | AMR-WB IO clean speech under impaired channel conditions | ACR | 1 |
| I3 | AMR-WB IO noisy speech under clean channel condition | DCR | 1 |
| I4 | AMR-WB IO noisy speech under impaired channel conditions | DCR | 1 |
| I5 | AMR-WB IO mixed contents and music under clean channel condition | DCR | 1 |
| I6 | AMR-WB IO mixed contents and music under impaired channel conditions | DCR | 1 |
| S1 | SWB clean speech under clean channel condition including input level dependency | DCR | 1 |
| S2 | SWB clean speech under impaired channel conditions including delay/jitter profiles | DCR | 1 |
| S3 | SWB noisy speech under clean channel condition | DCR | 1 |
| S4 | SWB noisy speech under clean channel condition | DCR | 1 |
| S5 | SWB noisy speech under impaired channel conditions | DCR | 1 |
| S6 | SWB mixed contents and music under clean channel condition | DCR | 1 |
| S7 | SWB mixed contents and music under impaired channel conditions including delay/jitter profiles | DCR | 1 |
|  |  | Total | 24 |

Table 2: List of experiments in the EVS codec Characterization Tests [EVS-8c]

Furthermore, SA4 would like to inform SG12 that SA4 has received recently a number of company contributions related to the ongoing IVAS codec work item describing quality assessments for stereo and spatial content. Based on these contributions, SA4 currently collects test design examples potentially relevant for IVAS codec testing. While the P.800 Supplement to be created in SG12 will focus on P.800 test methodology, the collection in SA4 will be confined to examples relevant for IVAS but be agnostic regarding the used test methodology. SA4 intends to resort to concepts of these examples when creating the IVAS codec selection and characterizations test plans. SA4 intends keeping SG12 updated on the result of this collection.

In the context of the IVAS work item, we would also like to inform SG12 and its participating companies that SA4 is inviting organizations that are potentially interested in carrying out lab tasks during IVAS codec selection and characterization. First action on their side may be attending SA4 meetings and considering providing contributions . The related call for labs is attached to this LS reply.

# 2 Actions

3GPP SA4 kindly asks SG12 to take its information related to EVS codec selection and characterization test as contribution to the Supplement of Rec. P.800 and the provided additional information about the collection of test design examples potentially relevant for IVAS codec testing into account.

SA4 further kindly asks SG12 and participating companies to consider the enclosed call for labs to participate in IVAS codec selection and characterization work.

Beyond this current liaison, 3GPP SA4 remains interested to be kept informed about the progress of the P.SUPPL800 work item.

# 3 Dates of next TSG SA WG 4 meetings

3GPP SA4#116-e 10-19 November 2021, e-meeting

3GPP SA4#117 14-18 February 2022, Sophia-Antipolis, FR