**Source: Editor[[1]](#footnote-1)**

**Title: IVAS Permanent Document IVAS-5: Selection Rules, v.0.2.0**

## Agenda Item: 14.2

**1. Introduction**

This Permanent Document describes the Selection Rules for the IVAS Selection Phase.

**2. Objective**

The objective of the selection rules is to determine the abilities of the candidates / of the single joint codec candidate to be standardized as the IVAS codec.

**3. Selection Rules**

The selection rules are set as follows:

**Rule 1: Provision of full set of selection phase deliverables**

The proponents of the single joint candidate shall provide all items of selection phase deliverables listed in IVAS-6 in due time in order to be considered further in the IVAS standardization.

**Rule 2: Compliance with design constraints**

The proponents of the single joint candidate shall report on compliance of the candidate solution with the design constraints in IVAS-4.

**Rule 3: Codec performance**

The performance of the codec candidate will be analysed based on test conditions, see IVAS-8a.

**4. Selection Procedure**

The selection procedure will consist of the following steps:

1. The proponents shall make available the IVAS codec specifications according to IVAS-6, Selection Deliverables. SA4 will discuss and decide to send them to TSG-SA for information.
2. The selection test results and analysis contained in the GAL report will be discussed and agreed.
3. A final discussion and review of the candidate characteristics and test results will take place. In this final discussion, optional additional codec related information may be presented and considered.

The final discussion will take into account how the candidate will be able to fulfill the WID objectives, see Table 1.

1. Agreement will be declared on the selection.
2. SA will be requested to approve the codec selection and the associated report on selection tests.

|  |  |
| --- | --- |
| **WID objectives**  | **Fulfilment** |
| 1 | The solution is expected to meet the terms of reference (design constraints, performance requirements) developed as part of this WI. |  |
|
| 2  | The solution is expected to handle encoding/decoding/rendering of speech, music and generic sound. * It is expected to support encoding of channel-based audio (e.g. mono, stereo or 5.1) and scene-based audio (e.g., higher-order ambisonics) inputs including spatial information about the sound field and sound sources. The solution is expected to provide support for diegetic and non-diegetic input.
* It is expected to provide a decoder for the encoded format and a renderer with sufficiently low motion to sound latency.
 |  |
| 3  | The solution is expected to operate with low latency to enable conversational services over 4G/5G. |  |
|
| 4  | The solution is expected to support high error robustness under various transmission conditions from clean channels to channels with packet loss and delay jitter and to be optimized for 4G/5G. |  |
|
|
|
| 5  | The solution is expected to provide support for a range of service capabilities, e.g., from mono to stereo to fully immersive audio encoding/decoding/rendering.  |  |
| 6  | The solution is expected to be implementable on a wide range of UEs and other end-user devices to address various needs in terms of balancing user experience and implementation complexity / cost. |  |
| 7 | The solution is expected to provide support for immersive Real-time Communication services including MTSI and potentially streaming services offered by the 5G system through the definition of a new immersive audio media component. Support for MTSI services is also accomplished by the provision of bit-exact EVS operation as part of the solution. |  |

Table 1: WID objectives

1. Imre Varga, Qualcomm Inc.; email: ivarga@qti.qualcomm.com [↑](#footnote-ref-1)