**3GPP TSG-SA WG4 Meeting #127S4-240426**

**Sophia-Antipolis, France, 29 January - 2 February 2024**

**Source:**

**Title: Rel-18 Work Item Exception for ISAR**

**Document for: Approval**

**Agenda Item: 14.10**

3GPP™ Work Item Exception

# Title : ISAR WI exception

## Acronym : ISAR

## Unique Identifier : 990025

**Release 18 Submission form**

|  |  |
| --- | --- |
| **Feature / Item:** |  |
| **Affects:** | **UICC apps:****No** | **ME:****Yes** | **AN:****No** | **CN:****Yes** | **Others (specify):****No** |
| **Expected Completion Date:** | SA4#128 - May 2024 (SA#104 June 2024) |
| **Service(s) impacted:** | Real-time Communication in Rel-18 relying on IVAS codec, 5G Media Streaming  |
| **Specification(s) affected:** | TS 26.249, TR 26.996, TS 26.250, TS 26.251, TS 26.252, TS 26.253, TS 26.254, TS 26.255, TS 26.256, TS 26.258, TS 26.114, TS 26.117, TS 26.119 |
| **Task(s) within work which are not complete:** | Introduction of ISAR feature (immersive audio split rendering) to IVAS codec. Introduction of IVAS specific ISAR solutions into other relevant specifications in the 26 series. Completion of ISAR main specification (TS 26.249) and Performance Characterization (TR 26.996)  |
| **Consequences if not included in Release 18:** | Lack of ISAR feature may make immersive audio as part of impacted services unavailable in constrained end devices.  |

**Abstract of document:**

The work item addresses the specification of solution(s) for immersive binaural audio on head-tracked devices. The solution(s) should consider low-complex and lightweight devices and demonstrate operational benefits over solutions with full decoding and rendering in the end device.

The developments under the work item shall lead to a new specification defining among others textual descriptions of the ISAR split rendering solution(s). The performance of the developed solution(s) in relation to ISAR split rendering requirements (see TR 26.865) will be documented in a second technical report. Solutions meeting the ISAR split rendering requirements may be added to the set of IVAS codec specifications (by means of CRs) if they are found suitable for IVAS. The developed solutions should also be referenced in the MeCAR specification.

Specific split rendering solutions for IVAS should comprise a non-mandatory default split rendering encoder for the specified internal and stand-alone IVAS renderers. In addition, for a given specific solution there should be specified interfaces offering the possibility either to connect a given (proprietary) renderer for IVAS to the intermediate representation encoder or to use proprietary pre-renderers/intermediate encoders to produce compliant intermediate bitstreams. Such proprietary solutions shall be compliant with the relevant requirements documented in TR 26.865. ISAR end device implementations for IVAS claiming support of a specific solution shall be required to have at least a fully compliant split rendering decoder. Other decoder/post-renderer implementations not claiming support of a specific ISAR solution for IVAS remain at the discretion of the implementor.

The WI exception is required to perform selection of the ISAR solution(s) based on the agreed terms of reference and to ensure that this/these solution(s) is/are available in the same Rel-18 timeframe as the impacted services.

**Contentious Issues:**

None.