**3GPP TSG-SA WG4 Meeting #133-e S4-251325**

**Online, 17 – 25 July 2025**

3GPP TSG SA#109 SP-24xxxx

China, CN, 16 – 19 September, 2025

**Title: Presentation of Specification/Report to TSG:
TR 26.956, Version 2.0.0**

**Source: 3GPP SA WG4**

**Document for: Approval**

**Abstract of document:**

As both network and devices capabilities advance, video services are evolving from traditional two-dimensional (2D) to more advanced "Beyond 2D" (B2D) experiences. Integrating B2D video into end-to-end 3GPP services can produce a more lifelike and immersive user experience. In order to determine appropriate beyond 2D video formats for different services, it is essential to evaluate their implementability and performance, considering implementation constraints, performance indicators, and interoperability.

TR 26.956 studies available and emerging beyond 2D video formats and compression technologies, documents a set of beyond 2D video end-to-end reference scenarios and workflows to support delivery over 3GPP network. For each scenario, it defines a concrete evaluation framework, including test conditions, KPIs, metrics, test sequences, and agreed reference signals. It also evaluates potential new representation formats and compression technologies relevant to each scenario. The study recommends considering the extension of stereoscopic representation formats, as well as stereoscopic capturing systems, on typical UE. For other representation formats such as dense dynamic point cloud and Multiview plus depth , continued monitoring of market adoption and content availability is recommended. The evaluation of dynamic mesh was not completed in this study and is recommended for future work. A more detailed study is also recommended for emerging representation formats such as 3D Gaussian Splatting (3D GS). Furthermore, it is recommended to investigate efficient network solutions and bandwidth optimization to enable real-time Beyond 2D video delivery across a wide viewing range without compromising perceptual immersion.

**Changes since last presentation to SA#108:**

This is the second presentation to TSG SA. The following updates have been made:

- Documentation of the evaluation results and findings for all agreed scenarios

- Identification and analysis of gaps and potential optimization opportunities

- Conclusion and proposed next step

**Outstanding Issues:**

None.

**Contentious Issues:**

None.

Change history of this document:

1999-11-17: original issue

2007-09-06: removal of references to Working Groups; bring names of TSGs up to date; correction of typo

2015-01-06: adds tdoc header & removes redundant information below