**3GPP TSG-SA WG4 Meeting #126S4-231825**

**Chicago, USA, 13 – 17 November 2023**

**Title: draft LS on SA4 study on new HEVC profiles and operating points**

**Response to:**

**Release: Rel-18**

**Work Item: FS\_HEVC\_Profiles**

**Source:** **3GPP SA4**

**To:** **ISO/IEC JTC 1/SC 29/WG 03 (MPEG Systems)**

**Cc:**

**Contact person: Waqar Zia**

 **waqar\_zia (at) apple.com**

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

**Attachments:**

# 1 Overall description

SA4 would like to point MPEG to the ongoing study in SA4 on new HEVC profiles and operating points which is gathering opportunities for improving HEVC-based 3GPP services. This includes documentation of motivating use cases and scenarios of relevance for 3GPP. Specifically, potential of improving on the following use cases is being studied: the compression performance for stereoscopic 3D content, the network performance related to exploding adaptive streaming traffic, and the demands for very high-quality images. HEVC based solutions to address each opportunity are identified: HEVC Multiview profiles, HEVC Scalable profiles, and HEVC 4:4:4 (up to 10 bits) capable profiles. Methodologies to investigate and document the pros and cons of the proposed solutions for each use case are being pursued. The study will conclude on the relevancy of solutions and if any new normative specification work is to be done in SA4.

As a part of this study, two potential aspects of interest for MPEG systems group have been identified in relation to making use of the above-mentioned tools for the targeted services:

1. Currently, there is no support for MV-HEVC in CMAF (ISO/IEC 23000-19:2020), which is relevant for MV-HEVC streaming services.
2. CMAF specification restricts the spatial resolution of the enhancement layer of scalable HEVC to be either 1.5, 2, or 3 times that of the base layer both horizontally and vertically in Annex H.4.2.2 (General constraints). SA4 is not clear on the reason of this constraint, which may prevent several other ratios of interest (e.g. ratio 1.0 for the enhancement layer to provide bit-depth scalability, or 1.25 etc. to provide more alternate scalable representations for adaptive streaming.

MPEG Systems WG is requested to take the above into account, and to kindly inform SA4 on any ongoing related activities. alsoSA4 study

# 2 Actions

**To MPEG Systems**

**ACTION:** SA4 kindly requests MPEG Systems WG to take the above information in account, and to inform SA4 on any ongoing related activities.

# 3 Dates of next TSG SA WG 4 meetings

# TSG-SA4 Meeting #127 29th January – 2nd February, 2024 Sophia, FR

TSG-SA4 Meeting #127-bis-e 8th – 12th April, 2024 E-meeting