3GPP TSG SA WG4#125 *TDoc S4-231437*

Goteborg, Sweden, 21-25 August 2023

**Title: [Draft] LS to MPEG on Messaging Application Format (PROMISE)**

**Response to: -**

**Release: Rel-18**

**Work Item: PROMISE**

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

**To:** **ISO/IEC JTC1 SC29 WG03 (MPEG Systems)**

**Cc: -**

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

**Attachments: Draft TS 26.143, CR to 26.140**

# 1 Overall description

3GPP TSG SA WG4 (SA4) would like to inform ISO/IEC JTC1 SC29 WG03 (MPEG Systems) about our ongoing work item on "5G-Advanced media profiles for messaging services (PROMISE)" as approved in SP-230542.

The purpose of this Work Item is to specify SMS/MMS/RCS/Messaging formats and codecs that GSMA and other organizations or application vendors can then reference and/or profile to improve messaging service quality and interoperability. Among others, the following objectives are addressed:

1. Create a new Messaging Media profiles specification (TS 26.143) for potential reference by MMS, GSMA RCS, and third-party messaging applications potentially used over the 5G System.
2. Adding or upgrading codecs and formats in 3GPP TS 26.140, 3GPP TS 26.141 to add basic formats to support the exchange of 3D scenes and assets, based on Khronos glTF and MPEG-I Scene Description, possibly in alignment with TS 26.119 and based on VR Audio/Video formats and codecs, in alignment with 5GMS TS 26.511 and TS 26.118.

The work is planned to complete in March 2024 for inclusion in Rel-18 of 3GPP.

A few considerations of potential relevance for MPEG Systems colleagues:

1. TS 26.140 (the MMS specification) today refers to the 3GPP File format, but the 3GPP file format has not been updated for many Releases. It is also noted that MMS does not support capability negotiation and, therefore, broadly and commonly supported technologies are relevant. It may be beneficial to define a commonly agreed industry profile for a basic messaging format that a “new” version of MMS can rely on. If such a profile exists in MPEG, we would be happy to consider it as reference. If not, we would ask MPEG Systems if they would support 3GPP in defining such a basic profile, similar to what was done for CMAF and MIAF for common streaming and image formats respectively. We also note that with regards to codecs, 3GPP relies on 3GPP specifications, and hence would not need media profiles. However, other functionalities such as random access, support for recording, and possibly encryption should be supported.
2. We observe that MIAF provides multiple profiles for still images, and it is a candidate to be added to the messaging formats. However, we also observe that MIAF, as defined today, specifies the use of only 8 bits in its basic HEVC profile, and does not reflect the need of 10 bit images, such as for High Dynamic Range (HDR) and Wide Colour Gamut (WCG) applications. On the other hand, its advanced HEVC profile includes features, such as 4:2:2 and monochrome support, that may not have wide support. A new profile that limits support to widely deployed HEVC profiles and includes 10 bit support seems desirable. A question was raised that if 3GPP needs such a profile, is it preferred to address this in 3GPP or for MPEG to provide it?
In addition, we have also observed that MIAF is an ISO BMFF based container file and we were wondering if a MIAF file can include also other media type, for example audio. A clarification on this aspect would be appreciated.
3. Finally, beyond the usage of the messaging format in MMS, 3GPP plans to develop a general messaging specification with more advanced profiles that may be used by third-party services, especially when some capability negotiation is possible. This includes the ability to carry 3D scenes, possibly the ability to carry HTML-5 presentations to support animations, and local interactivity. Any input and feedback from MPEG on this matter is welcome.

Attached are initial drafts of the CR to TS 26.140 and TS 26.143 for your information. 3GPP SA4 would welcome MPEG Systems feedback.

# 2 Actions

**To ISO/IEC JTC1 SC29 WG03 (MPEG Systems)**

**ACTIONS:** 3GPP SA4 kindly asks ISO/IEC JTC1 SC29 WG03 (MPEG Systems)

- to provide feedback on the availability or, if not, on the interest to develop a basic container format of the ISO BMFF for messaging services, in particular MMS, by either upgrading or replacing the 3G file format.

- to provide feedback on creating a new profile for MIAF that includes widely adopted and implemented HEVC profiles and supports 10 bits and the usability with other media types.

- to take the remaining information into account and provide feedback on general issues and/or the current drafts.

# 3 Dates of next TSG SA WG 4 meetings

SA4#126 13th–17th November 2023 Chicago, IL, USA

SA4#127 29th January –2nd February 2024 Sophia-Antipolis, France