**3GPP TSG SA WG4 Meeting 132S4-250793**

**Fukuoka, JP, 19 - 23 May 2025**

**Source: Qualcomm Incorporated**

**Title: [FS\_MeMe] Proposed Conclusions and Recommendations**

**Type: pseudo Change Request**

**Spec: 3GPP TR26.841v1.2.0**

**Agenda item: 8.6**

**Document for: Decision**

**1. Introduction and Discussion**

No conclusions were yet available.

**2. Reason for Change**

This progresses the work.

Note that this document assumes that S4-250788, S4-250789, S4-250790, S4-250791, and S4-250792 are agreed.

**3. Conclusions**

Please accept.

**4. Proposal**

It is proposed to agree the following changes to 3GPP TR26.841v1.2.0.

**5. Revision**

This revision takes into account the comments made during the presentation during SA4#132.

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| --- | --- |
| TDoc | [S4-250793](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_132_Fukuoka/Docs/S4-250793.zip) |
| Title | [FS\_MeMe] Proposed Conclusions and Recommendations |
| Source | Qualcomm Sweden |
| Contact | Thomas Stockhammer |
| Agenda Item | 8.6 |
| E-mail Discussion | No e-mail discussion. |
| Revisions | No revisions available. |
| Minutes | 21/05/25Presented by Thomas.* Thomas: This assumes all previous document are agreed.
* Rufael: We will need some time to review this.
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| Disposition |  |
| Status |  parked |

\* \* \* First Change \* \* \* \*

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# 6 Conclusions and Recommendations

## 6.1 General

The Technical Report discussed enhancements for Media Messaging as defined in TS 26.143 [26143]. TS 26.143 defines capabilities and profiles for messaging services.

Recommendations for normative work and further studies are summarised in the following clauses.

All work topics will benefit from continuously checking relevance and support across 3GPP members. In addition, close coordination with other groups in 3GPP as well, in communication with experts in 5G-MAG, MPEG, IETF, GSMA and other groups is recommended.

## 6.2 Conclusions

Table 6.2-1 points to conclusions and next steps for each of the key issues studied in the present document.

Table 6.2-1: Index of Key Issues, Conclusions, and Next Steps

|  |  |
| --- | --- |
| Key Issue | Conclusions and Next Steps clause |
| Key Topic #1: Integration of TS 26.143 Capabilities and Profiles into IETF MIMI  | 5.1.4 |
| Key Topic #2: Support of advanced file format | 5.2.4 |
| Key Topic #3: Support of external body content and late binding | 5.3.4 |
| Key Topic #4: DRM and encrypted content | 5.4.4 |
| Key Topic #5: Additional media experiences | 5.5.4 |
| Key Topic #6: Media Service Enabler | 5.6.7 |

## 6.3 Recommendations for future work arising from version 19

### 6.3.1 Introduction

In a first phase of feasibility study, Key Issues have been defined and documented in version 19 of the present document. Based on the study of these, the following next steps are recommended.

### 6.3.2 Recommendations for normative specification

Editor’s Note: This needs to be updated after the individual contributions are completed.

It is recommended to provide relevant extensions to 3GPP TS 26.143 for improved media messaging based on the conclusions in clause 5. Candidates for extensions are

1. For *Key Topic #3: Support of external body content and late binding* as introduced in clause 5.3 and based on the conclusions in clause 5.3.4:

a. Add in clause 5.2.1 in the Player and Decoding capabilities the functionality to support message/external-body as defined in RFC 2046.

b. Add a new Manifest-based container format in a generic manner in a new subclause of clause 5 in TS 26.143 and reference the clause from clause 5.2.

c. Provide an instantiation for a DASH-based MPD based on the existing DASH-based storage formats identified in clause 5.3.3.1.2.

d. Define a reference client implementation based on DASH-IF IOP v4.3 and dash.js for content selection in an Annex of TS 26.143.

e. Create a new Manifest-based MMBP Player Profile that permits the following options

- external referencing

- referencing of DASH MPDs

- referencing of HLS M3U8

- the included content in the presentations conforms to the content defined in TS 26.143

- a DASH profile identifier is provided

- add the call flow in 5.3.2 to the profile

f. Add an example to the Annex aligned with the one in clause 5.3.3.1.4.

2. For *Key Topic #4: DRM and encrypted content* as introduced in clause 5.4 and based on the conclusions in clause 5.4.4:

a. Address all extensions documented in clause 5.3.4.

b. Permit Content Protection to be signalled in the manifest.

3. For *Key Topic #5: Additional media experiences* as introduced in clause 5.5 and based on the conclusions in clause 5.5.4:

a. Advanced media experiences including beyond 2D formats and signals as defined in TS 26.265 [26265] should be enabled for Messaging services. The detailed parameters are expected to be defined in TS 26.265 [26265] in a service-independent manner.

b. Associated encoding and decoding capabilities are also defined in TS 26.265 [26265]

c. System Operation Points are not addressed in TS 26.265 [26265] in its entirety, i.e. the definition of a track format needs to be addressed in TS 26.143 when referencing an operation point. Usage of system integration functionalities defined in TS 26.265 should be re-used.

d. Media Type signalling including codecs parameters should be defined in TS 26.265 and referenced in TS 26.143.

e. recommended to support relevant operation points supporting beyond 2D video formats as defined in TS 26.265 in TS 26.143, addressing the above functionalities

4. For *Key Topic #6: Media Service Enabler* as introduced in clause 5.6 and based on the conclusions in clause 5.6.4:

a. Connect TS 26.143 to 3GPP TR 26.857 that it fulfils some MSE concepts

b. Add a call flow to TS 26.143 aligned with what is in clause 4.1 of this document

c. Add a set of stage-2 APIs and parameter that can be assigned to player and generator

d. Add more examples for content offerings

It is recommended that the candidate extensions under bullet 4 for key topic #6 are addressed as soon as possible to support implementability and deployment of TS 26.143. For the other topics it is recommended to further study the potential open issues identified before normative work is initiated.

### 6.3.3 Recommendations for further study

It is recommended to continue the study of additional extensions to Media Messaging. Candidate topics based on the present document are:

1. For *Key Topic #1: Integration of TS 26.143 Capabilities and Profiles into IETF MIMI* as introduced in clause 5.1 and based on the conclusions in clause 5.1.4:

- Based on the introduction of IETF MIMI in clause 4.2.3, the protocol is expected to be relevant for future messaging services. However, the work is not yet complete and hence further study is recommended once the work in IETF matures.

2. For *Key Topic #2: Support of advanced file format* as introduced in clause 5.2 and based on the conclusions in clause 5.2.4:

- Based on the introduction of MPEG MeMAF in clause 4.2.4, the advanced file format is expected to be relevant for future messaging services. However, the work is not yet complete and hence further study is recommended once the work in MPEG matures.

3. For *Key Topic #6: Media Service Enabler* as introduced in clause 5.6 and based on the conclusions in clause 5.6.4:

- formalize API definitions

- create more test material

4. For *Key Topic #7: Media Service Enabler* as introduced in clause 5.6 and based on the conclusions in clause 5.6.4:

- improve interoperability for image formats in 3GPP specifications

- study relevant use cases for image-related interoperability, in particular including those for messaging.

- identify key formats that are supported in services and devices

- identify potentially relevant image formats and compression technologies

- provide a similar approach as applied for TS 26.265, namely to focus on service-independent image formats initially and update relevant 3GPP service specifications and profiles such as Media Messaging by referencing such a specification.

### 6.3.4 Recommendations for coordination with other groups

It is recommended to coordinate work with other working groups and organizations as follows:

1. For *Key Topic #1: Integration of TS 26.143 Capabilities and Profiles into IETF MIMI* as introduced in clause 5.1 and based on the conclusions in clause 5.1.4:

- Continue to monitor the work in IETF

2. For *Key Topic #2: Support of advanced file format* as introduced in clause 5.2 and based on the conclusions in clause 5.2.4:

- Continue to monitor the work in MPEG

\* \* \* End of Changes \* \* \* \*