**3GPP TSG SA WG4 Meeting #109e S4-200972**

**20th May – 03th June 2020**

**Source: Qualcomm Incorporated, Samsung Electronics Co., Ltd., Ericsson LM, LG Electronics Inc.**

**Title: New WID on Removal of H.263 and MPEG-4 Visual from 3GPP Services**

**Document for: Approval**

**Agenda Item: 19**

3GPP™ Work Item Description

For guidance, see [3GPP Working Procedures](http://www.3gpp.org/About/WP.htm), article 39; and [3GPP TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm).
Comprehensive instructions can be found at <http://www.3gpp.org/Work-Items>

# Title: New WID on Removal of H.263 and MPEG-4 Visual from 3GPP Services

## Acronym: RM\_H263\_MP4V

## Unique identifier:

## 1 Impacts

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Affects:** | UICC apps | ME | AN | CN | Others (specify) |
| **Yes** |  | X |  | X |  |
| **No** |  |  |  |  | X |
| **Don't know** | X |  | X |  |  |

## 2 Classification of the Work Item and linked work items

### 2.1 Primary classification

This study item is a

|  |  |
| --- | --- |
| x | Feature |
|  | Building Block |
|  | *Work Task* |
|  | Study Item |

### 2.2 Parent and child Work Items

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| --- |
| Parent and child Work Items  |
| Unique ID | Title | Nature of relationship |
|  |  |   |

### 2.3 Other related Work Items and dependencies

|  |
| --- |
| Other related Work Items (if any) |
| Unique ID | Title | Nature of relationship |
| EMM | Enhancements to Multimedia: PSS, MMS, and MBMS Enhancements and Performance Improvements | This WID in Rel-11 already changed the status for H.263 and MPEG-4 Visual, but it was not fully removing the technologies. |
| 5GMS3 | 5G Media Streaming stage 3 | 5GMS3 may deprecate TS26.234 and if so, no CR in Rel-16 related to this work item would be necessary. However, if TS26.234 will be produced in Rel-16, this work item will affect this specification. |

## 3 Justification

H.263 was a state-of-the art codec in the last millennium and made mobile video possible and an actual reality. Many 3GPP specs adopted H.263 and H.263 was the format of choice for the first mobile video deployments. For a brief history, please check <https://en.wikipedia.org/wiki/H.263>. However, more than 20 years later, this format has finally done its duty and 3GPP should feel good about sending this codec to retirement as part of their Rel-16 specs.

In 2012 (Rel-11), 3GPP already addressed to change the status of H.263 and MPEG-4 Video in several specifications, but did not fully remove the technology for all services.

Some leftover H.263 related statements remain, and TS 26.140 still recommends the use of H.263.

The same issue applies to MPEG-4 Visual which does not have any status in any spec, but many leftovers still.

Why is it relevant to retire older codecs? Supporting codecs on hardware is a significant amount effort and cost, including area size, design and testing. Even if the codec is supported in SW only (which may well be ok for H.263), it still requires a significant amount of unnecessary and costly testing efforts. Supporting such codecs on newly shipping 5G device will just reduce space for new codecs and technologies to be potentially added. One important reason is, that despite on Android there is SW codec for these formats, there are more and more devices such as watches which do not use Android and hence would require custom H.263 integration.

Hence, it is proposed to remove any normative (shall, should, may) statements related to H.263 and MPEG-4 Visual from Rel-16 service specifications and also clean those specifications from any references and context to H.263 and MPEG-4 Visual.

However, if needed it is worthwhile to add informative text to point to the status of H.263 and MPEG-4 Visual in earlier Releases, wherever appropriate.

Note that this work does not remove H.263 and MPEG-4 Visual from earlier Releases.

## 4 Objective

The objective of this work item are as follows:

* remove any normative (shall, should, may) statements related to H.263 from Rel-16 service specifications and related unnecessary or confusing statements. This in particular includes
	+ TS 26.114
	+ TS 26.140
	+ TS 26.234 (if needed)
	+ TS 26.346
* remove any normative (shall, should, may) statements related to MPEG-4 Visual, if applicable, from Rel-16 service specifications and related unnecessary or confusing statements. This in particular includes
	+ TS 26.114
	+ TS 26.234 (if needed)
	+ TS 26.244
* Identify other 3GPP service specifications (under SA4 control and outside SA4) that reference H.263 or MPEG-4 Visual and provide relevant updates, if necessary.
* Communicate with relevant organizations on this update, if necessary.

## 5 Expected Output and Time scale

|  |
| --- |
| **New specifications** *{One line per specification. Create/delete lines as needed}* |
| Type  | Series | Title | For info at TSG#  | For approval at TSG# | Remarks |
|  |  |  |  |  |  |

|  |
| --- |
| **Impacted existing TS/TR** *{One line per specification. Create/delete lines as needed}* |
| TS/TR No. | Description of change  | Target completion plenary# |
| *26.140* | Removing H.263 and from MMS | *SA#88e (Jun' 20)* |
| *26.114* | Removing H.263 and MPEG-4 Visual from MTSI | *SA#88e (Jun' 20)* |
| *26.244* | Removing MPEG-4 Visual from 3G FF | *SA#88e (Jun' 20)* |
| *26.346* | Removing H.263 from MBMS | *SA#88e (Jun' 20)* |
| *26.234* | Removing H.263 and MPEG-4 Visual from PSS | *SA#88e (Sep' 20), if necessary* |
| *XX.XXX* | *Other CRs, if necessary* | *SA#89e (Sep' 20), if necessary* |

## 6 Work item Rapporteur(s)

*Thomas Stockhammer, tsto@qti.qualcomm.com*

## 7 Work item leadership

TSG SA WG4

## 8 Aspects that involve other WGs

SA4 will coordinate this work with relevant WGs if necessary.

## 9 Supporting Individual Members

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| --- |
| Supporting IM name |
| Qualcomm Incorporated |
| Samsung Electronics Co., Ltd. |
| Ericsson LM |
| LG Electronics Inc. |