**3GPP TSG SA WG4#119-e S4-220737**

**E-meeting, 11th- 20th May 2022**

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| *CR-Form-v12.0* | | | | | | | | |
| **PSEUDO CHANGE REQUEST** | | | | | | | | |
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|  | **26**.**955** | **CR** |  | **rev** | **-** | **Current version:** | **1.6.0** |  |
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| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network |  |

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| ***Title:*** | **[FS\_5G\_Video] Proposed Updates to the TR** | | | | | | | | | |
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| ***Source to WG:*** | Tencent | | | | | | | | | |
| ***Source to TSG:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | FS\_5GVideo | | | | |  | ***Date:*** | | | 05/05/2022 |
|  |  | | | |  | |  | | |  |
| ***Category:*** |  |  | | | | | ***Release:*** | | |  |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) Rel-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
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| ***Reason for change:*** | | * Proposed update to the Scope section so as to better reflect the content of the TR. * Updates of the references | | | | | | | | |
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| ***Summary of change:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | |  | | | | | | | | |
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|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  |  | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  |  | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  |  | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

**===== CHANGE =====**

# 1 Scope

The present technical report documents relevant interoperability requirements, performance characteristics and implementation constraints of video codecs in 5G services, and characterizes video codecs, in particular 3GPP defined codecs H.264/AVC and H.265/HEVC in order to have a benchmark for the addition of potential future video codecs. For this purpose, the document:

- Collects a summary of the video coding capabilities in 3GPP services.

- Collects a subset of relevant scenarios for video codecs in 5G-based services and applications, including video formats (resolution, frame rates, colour space, etc.), encoding and decoding requirements, adaptive streaming requirements.

- Collects relevant and exemplary test conditions and material for such scenarios, including test sequences.

- Defines performance metrics for such scenarios with focus on objective performance metrics.

- Collects relevant interoperability functionalities and enabling elements for video codecs in different 5G services such as MTSI and Telepresence (i.e. RTP based conversational communications), or 5G media streaming (e.g. based on DASH/CMAF) supporting the identified scenarios.

- Collects relevant criteria and key performance indicators for the integration of video codecs in 5G processing platforms, taking into account factors such as encoding and decoding complexity in the context of the defined scenarios.

- Provides anchors for the existing codecs H.264/AVC and H.265/HEVC in the context of the above scenarios and document the findings in a consistent manner and characterizes H.265/HEVC against H.264/AVC

- Provides initial information on EVC video codec developed in ISO/IEC SC29 WG 4 and H.266/VVC video codec developed and in JVET (ITU-T SG16 Q6 and ISO/IEC SC29 WG 5) the context of the above scenarios, including test streams and characterization results.

- Provides initinal information AV1 video codec developed by the Alliance for Open Media in the context of the above scenarios, including test streams and characterization results.

**===== CHANGE =====**

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[….]

[7] Recommendation ITU-T H.264 (08/2021): "Advanced video coding for generic audiovisual services" | ISO/IEC 14496-10:2020: "Information technology - Coding of audio-visual objects - Part 10: Advanced Video Coding".

[8] Recommendation ITU-T H.265 (08/2021): "High efficiency video coding" | ISO/IEC 23008-2:2020: "High Efficiency Coding and Media Delivery in Heterogeneous Environments - Part 2: High Efficiency Video Coding".

[…]

[16] Recommendation ITU‑R BT.2100-1 (07/2018): "Image parameter values for high dynamic range television for use in production and international programme exchange".

[….]