3GPP TSG WG SA4 Meeting 90-e TDoc S4-200XXX

E-meeting 20th May – 3rd June 2020

**Title: [Draft] LS on video codec evaluation**

**Release: Release 17**

**Work Item: FS\_5GVideo**

**Source: 3GPP SA4**

**To: ITU-T Q6/16 (Question 6, Study Group 16), ISO/IEC SC29 WG 11 (MPEG)**

**Cc:**

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

**Attachments:**

* [SP-200052](https://www.3gpp.org/ftp/tsg_sa/TSG_SA/TSGS_87E_Electronic/Docs/SP-200052.zip) Feasibility Study on 5G Video Codec Characteristics (FS\_5GVideo)
* TR26.955 – latest draft version here: https://portal.3gpp.org/desktopmodules/Specifications/SpecificationDetails.aspx?specificationId=3741

# 1 Overall description

3GPP SA4 is currently conducting a Release-17 study item on "Video Codec Characterization" for 5G-based services and applications. The progress of the work is tracked in the draft Technical Report TR 26.955. Completion date is expected by the end of 2020. The objectives of the study item in SP-200052, include, among others:

1. Collects a subset of relevant scenarios for video codecs in 5G-based services and applications, including video formats (resolution, frame rates, color space, etc.), encoding and decoding requirements, adaptive streaming requirements.
2. Collects relevant and exemplary test conditions and material for such scenarios, including test sequences.
3. Defines performance metrics for such scenarios with focus on objective performance metrics.
4. Characterizes 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.
5. Collects initial information on how new codecs under development in ISO/IEC SC29 WG11 (MPEG)/JVET (in particular including VVC and EVC) may meet the above criteria.

3GPP SA4 has agreed on an initial set of scenarios as documented in TR26.955. In the context of the study, 3GPP SA4 is furthermore defining formal guidelines for video codec characterization, including specification of bitrate computation, objective quality metrics measurement and other relevant aspects. In particular, in context of objective 3 above, 3GPP SA4 identified that the JVET document R2016 entitled “Summary information on BD-rate experiment evaluation practices” is of potential relevance for defining accurate performance metrics. In order to avoid copying or redefining the relevant metrics, 3GPP SA4 would rather like to rely on the information in the document. For this purpose, SA4 would like to ask JVET (or their respective parent bodies) if the above document could possibly be published as referenceable permanent document, for example as a Technical Report, together with relevant software and scripts. 3GPP SA4 members would be willing to support such efforts.

Beyond this specific request, 3GPP SA4 is always interested in latest information that can support the study in 3GPP. Your input and feedback are welcome.

# 2 Actions

**To JVET and/or the parent bodies ITU-T Q6/16 (Question 6, Study Group 16) and ISO/IEC SC29 WG 11 (MPEG)**

**ACTION:**

1. SA4 kindly asks if the information in JVET document R2016 may be published in a Technical Report or any other means such that it is permanently accessible and referencable, potentially accompanied with relevant software.
2. SA4 kindly asks for any relevant information in the context of the study for 5G Video.

# 3 Dates of next TSG SA WG 4 meetings

3GPP SA4 #110e 19 - 28 August 2020, e-meeting

3GPP SA4 #111e 9 – 13 November 2020, e-meeting (tbc)s