**3GPP TSG-SA4 Meeting #129-e *S4-241480***

**online, , 19 - 23 Aug 2024**

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| *CR-Form-v12.2* | | | | | | | | |
| **PSEUDO CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **26.265** | **CR** | **pseudo** | **rev** | **-** | **Current version:** | **0.2.2** |  |
|  | | | | | | | | |
| *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 | **X** | Radio Access Network |  | Core Network | **X** |

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|  | | | | | | | | | | |
| ***Title:*** | [VOPS] System Operation Points | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Qualcomm Incorporated | | | | | | | | | |
| ***Source to TSG:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | VOPS | | | | |  | ***Date:*** | | | 2024-08-12 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-19 |
|  | *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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 2, 4, 6, 7 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

## ===== 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".

[h264] ITU-T Recommendation H.264 (08/2021): "Advanced video coding for generic audiovisual services".

[h265] ITU-T Recommendation H.265 (09/2023): "High efficiency video coding".

[CMAF] ISO/IEC 23000-19: "Information Technology Multimedia Application Format (MPEG-A) – Part 19: Common Media Application Format (CMAF) for segmented media".

[CENC] ISO/IEC 23001-7: "MPEG systems technologies - Part 7: Common encryption in ISO base media file format files".

[DPC] CTA-5003-A & Errata: "Web Application Video Ecosystem (WAVE): Device Playback Capabilities Specification", available at <https://cdn.cta.tech/cta/media/media/resources/standards/pdfs/cta-5003-final.pdf>.

[6381] IETF RFC 6381: The 'Codecs' and 'Profiles' Parameters for "Bucket" Media Types.

[MSE] 3GPP TR 26.857, "5G Media Service Enablers"

[h274] ITU-T Recommendation H.274 (09/2023): "Versatile supplemental enhancement information messages for coded video bitstreams".

[h273] ITU-T Recommendation H.274 (09/2023): "Coding-independent code points for video signal type identification".

## ===== CHANGE =====

## 4.4 Video representation formats

Editor’s Note: Need to define video signal parameters, SDR, HDR, etc.

### 4.4.1 Overview

This clause defines video representation formats in the context of media delivery in 3GPP. For this purpose, a set of video signal parameters are defined in clause 4.4.2, with the restriction on what is defined in 3GPP media delivery. Based on the defined video signal parameters, clause 4.4.3 defines a set of video representation formats.

NOTE: These clause does not specifiy whether these parameters and formats are required, recommended or suggested to be supported. This aspect is left to specific service specifications or external specifications to refer to the parameters and formats defined in this clause.

### 4.4.2 Video signal parameters

Video signals are typically described by a set of parameters that are required for properly rendering the decoded signal. Table 4.4.2-1 documents typical video signal parameters and provides a definition and/or reference.

Editor’s Note: We should check what is defined in ITU-T H.274 [h274], ITU-T H.273 [h273]

* width, height
* chroma format indicator: mono, 4:2:0, 4:2:2, 4:4:4 (in 3GPP only 4:2:0)
* bit depth: 8, 10 in 3GPP
* scan type: progressive in 3GPP
* aspect ratio
* colour primaries, transfer characteristics, matrix coefficients
* full range
* chroma location

We need to ensure that what is documented in 26.265 doesn’t conflict with other specs like 26.116 or 26.118. Then it’s a matter of redirection of the video capabilities from the 3GPP service specifications. 5GMS (26.511) currently points to 26.116 for TV profiles and 26.118 for video profiles. Once 26.265 is well progressed, it can be used as the unique place referenced by 5GMS and other 3GPP services (RTC, MTSI..). It’s not a straightforward exercise and should be done incrementally I agree.

### 4.4.3 Formats

Video representation formats are described by a set of well-defined video signal parameters.

Editor’s Note:

* check what is available in TS 26.116, also from S4-240619
* Standard Definition and SDR:
* High Definition and SDR:
* Ultra-High Definition and HDR PQ:
* Ultra-High Definition and HDR HLG

## 4.5 Reference API parameters

Editor’s Note: The following parameters just summarize parameters available.

Decoding:

* Codec string
* Metadata processing

Encoding:

* Codec string
* Bitrate and bitrate modes
* displayWidth/Height
* framerate
* latency modes
* Codec specific parameters
* Metadata

Packaging

* CMAF + brand
* Other CMAF options

## ===== CHANGE =====

# 6 Video Operation Points

Editor’s Note: A collection of different possible video formats including spatial and temporal resolutions, colour mapping, transfer functions, etc. and a video encoding format.

* See again S4-240619 for exising ones

## 6.1 Introduction

## ===== CHANGE =====

# 7 Video Media Profiles and System Capabilities

## 7.1 Introduction