Video SWG Minutes during SA4#111e

## 10.1 Opening of the session

Mr. Gilles Teniou (Tencent, Chairman of Video SWG) opens Video SWG on November 13, 2020 at 0800 CET. E-mail discussion started already on Nov 12.

* Start of Video SWG e-meeting (Email): 12th November 0600 CET
* VIDEO SWG Sessions:
  + Slot 1 13th November 0800 – 0930 CET
  + Slot 2 16th November 1430 – 1600 CET
  + Slot 3 16th November 2300 – 0030(+1) CET
  + Slot 4 17th November 2300 – 0030(+1) CET
  + Slot 5 18th November 1630 – 1800 CET
* Final Revisions (for e-mail agreement process): 18th November 22:00 CET
* Latest E-mail agreement triggers: 19th November 01:00 CET
* End of E-mail agreements: 19th November 19:00 CET
* Closing plenary Telco#1: 19th November 2200 – 2359 CET
* Closing plenary Telco#2: 20th November 1430 – 1630 CET

Mr. Thomas Stockhammer (Qualcomm) is assigned as scribe.

The minutes are shared [online](https://docs.google.com/document/d/1va_bZnNKig0B5FvEoOR3EWtr_MyD0ROlHpm5ffwkU_4/edit?usp=sharing).

All e-mail discussions during the week can be tracked here:

* <https://list.etsi.org/scripts/wa.exe?A1=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO>
* <https://list.etsi.org/scripts/wa.exe?A1=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO>

Latest Timestamp for e-mail discussions: Tue, 17 Nov 2020 23:44:11 +0900

The agenda and the registration of documents are agreed.

## 10.2 Registration of documents

The following documents were registered before the meeting and assigned to Video SWG:

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| 10 | Video SWG |  |
| 10.1 | Opening of the session |  |
| 10.2 | Registration of documents |  |
| 10.3 | Reports and liaisons from other groups |  |
| 10.4 | CRs to features in Release 16 and earlier | 1340, 1341, 1414 |
| 10.5 | 8K\_VR\_5G (Operation Points for 8K VR 360 Video over 5G) | 1332, 1333, 1334, 1390 |
| 10.6 | FS\_VR\_CoGui (Feasibility Study on VR Streaming Conformance and Guidelines) |  |
| 10.7 | FS\_5GVideo (Feasibility Study on 5G Video Codec Characteristics) | 1389->1455, 1392, 1393, 1394, 1395, 1396, 1397->1425, 1448, 1449, 1450    1391 |
| 10.8 | FS\_XRTraffic (Feasibility Study on Typical Traffic Characteristics for XR Services and other Media) | 1335, 1336, 1339, 1400, 1401, 1402, 1403, 1404, 1422, 1490    1398, 1399 |
| 10.9 | FS\_5GSTAR (Feasibility Study on 5G Glass-type AR/MR Devices) | 1337, 1338, 1378, 1379, 1405, 1406, 1409, 1410, 1411, 1412, 1413, 1416, 1423, 1442 |
| 10.10 | New Work / New Work Items and Study Items |  |
| 10.11 | Liaisons and Liaison Responses |  |
| 10.12 | Any Other Business |  |
| 10.13 | Close of the session |  |

## 10.3 Reports and liaisons from other groups

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| [S4-201468](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201468.zip) | LS/r on video codec evaluation (3GPP SA4-200958) [to 3GPP SA4] | ITU-T SG16 | 5.3 |

**E-mail Discussion:**

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| --- | --- | --- |
| [[10.3; 1468; 17Nov 1400 CET] LS ITU-T Objective quality metrics](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=34354) | teniou(TeniouGilles) | Fri, 13 Nov 2020 17:47:29 +0000 |
| [[10.3; 1468; 17Nov 1400 CET] LS ITU-T Objective quality metrics](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=727) | Thomas Stockhammer | Sun, 15 Nov 2020 12:30:59 +0000 |

**Discussion:**

* Gilles: we should give them a clear status
  + Thomas: Yes, we are pretty good, some cleaning is needed.

**Decision:**

* We postpone and reply from telco.

**S4-201468** is postponed.

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| [S4-201494](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201494.zip) | LS MPEG MPEG-I V-PCC | ISO/IEC SC29 WG7 | 5.3 |

**E-mail Discussion:**

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| [[10.3; 1494; 17Nov 1400 CET] LS MPEG MPEG-I V-PCC](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=33433) | teniou(TeniouGilles) | Fri, 13 Nov 2020 17:47:24 +0000 |
| [[10.3; 1494; 17Nov 1400 CET] LS MPEG MPEG-I V-PCC](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=5193) | Thomas Stockhammer | Mon, 16 Nov 2020 10:04:18 +0000 |
| [[10.3; 1494; 17Nov 1400 CET] LS MPEG MPEG-I V-PCC](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=5968) | Ralf Schaefer | Mon, 16 Nov 2020 10:28:53 +0000 |
| [[10.3; 1494; 17Nov 1400 CET] LS MPEG MPEG-I V-PCC](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=6745) | Thomas Stockhammer | Mon, 16 Nov 2020 10:32:00 +0000 |
| [[10.3; 1494; 17Nov 1400 CET] LS MPEG MPEG-I V-PCC](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=7519) | Ralf Schaefer | Mon, 16 Nov 2020 10:36:40 +0000 |
| [[10.3; 1494; 17Nov 1400 CET] LS MPEG MPEG-I V-PCC](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=8201) | Thomas Stockhammer | Mon, 16 Nov 2020 10:40:08 +0000 |
| [[10.3; 1494; 17Nov 1400 CET] LS MPEG MPEG-I V-PCC](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=10362) | Ralf Schaefer | Mon, 16 Nov 2020 10:44:50 +0000 |
| [[10.3; 1494; 17Nov 1400 CET] LS MPEG MPEG-I V-PCC](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=11688) | Thomas Stockhammer | Mon, 16 Nov 2020 10:47:58 +0000 |
| [[10.3; 1494; 17Nov 1400 CET] LS MPEG MPEG-I V-PCC](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=13065) | champelmary-luc | Mon, 16 Nov 2020 11:30:26 +0000 |
| [[10.3; 1494; 17Nov 1400 CET] LS MPEG MPEG-I V-PCC](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=13664) | teniou(TeniouGilles) | Mon, 16 Nov 2020 11:46:48 +0000 |
| [[10.3; 1494; 17Nov 1400 CET] LS MPEG MPEG-I V-PCC](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=4638) | Hakju Ryan Lee | Mon, 16 Nov 2020 18:31:51 +0900 |
| [[10.3; 1494; 17Nov 1400 CET] LS MPEG MPEG-I V-PCC](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=40081) | Thomas Stockhammer | Tue, 17 Nov 2020 12:13:44 +0000 |
| [[10.3; 1494; 17Nov 1400 CET] LS MPEG MPEG-I V-PCC](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=43772) | teniou(TeniouGilles) | Tue, 17 Nov 2020 13:28:44 +0000 |
| [[10.3; 1494; 17Nov 1400 CET] LS MPEG MPEG-I V-PCC](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=39853) | 이학주 | Tue, 17 Nov 2020 20:55:44 +0900 |
| [[10.3; 1494; 17Nov 1400 CET] LS MPEG MPEG-I V-PCC](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=41097) | Jaeyeon Song | Tue, 17 Nov 2020 21:17:04 +0900 |
| [[10.3; 1494; 17Nov 1400 CET] LS MPEG MPEG-I V-PCC](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=50424) | 이학주 | Tue, 17 Nov 2020 23:44:11 +0900 |
| [[10.3; 1494; 18Nov 1600 CET] LS MPEG MPEG-I V-PCC](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=43240) | teniou(TeniouGilles) | Tue, 17 Nov 2020 13:29:09 +0000 |

**Discussion:**

* Mary-Luc: no response is needed specifically for V-PCC and STAR
  + Ralf: we support for sending it
  + Jaeyeon: See my e-mail, we support sending it and we did it before to send unmotivated LSs
  + Thomas: specific ping ponging on V-PCC STAR not necessary, if we wanna send anything, then let’s send a general overview.

**Decision:**

* No consensus for reply, Samsung is invited to produce a new document on this matter. Document 1509

**S4-201494** is handed back to plenary and has no status.

## 10.4 CRs to completed features in Release 16 and earlier

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| [S4-201340](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201340.zip) | Corrections to Video Operation Points | Intel | 10.4 |

**E-mail Discussion:**

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| [[10.4; 1340; 16Nov 1200 CET] VRStream CR on 26.118: Corrections to Video Operation Points](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=6074) | teniou(TeniouGilles) | Thu, 12 Nov 2020 11:17:51 +0000 |
| [[10.4; 1340; 16Nov 1200 CET] VRStream CR on 26.118: Corrections to Video Operation Points](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=18245) | Thomas Stockhammer | Thu, 12 Nov 2020 22:25:22 +0000 |
| [[10.4; 1340; 16Nov 1200 CET] VRStream CR on 26.118: Corrections to Video Operation Points](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=14503) | teniou(TeniouGilles) | Mon, 16 Nov 2020 11:52:25 +0000 |

**Decision:**

* Agreed via e-mail

**S4-201340** is agreed.

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| [S4-201341](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201341.zip) | Corrections to Video Operation Points | Intel | 10.4 |

**E-mail Discussion:**

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| [[10.4; 1341; 16Nov 1200 CET] VRStream CR on 26.118: Corrections to Video Operation Points](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=7035) | teniou(TeniouGilles) | Thu, 12 Nov 2020 11:18:10 +0000 |
| [[10.4; 1341; 16Nov 1200 CET] VRStream CR on 26.118: Corrections to Video Operation Points](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=19222) | Thomas Stockhammer | Thu, 12 Nov 2020 22:26:18 +0000 |
| [[10.4; 1341; 16Nov 1200 CET] VRStream CR on 26.118: Corrections to Video Operation Points](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=15336) | teniou(TeniouGilles) | Mon, 16 Nov 2020 11:52:31 +0000 |

**Decision:**

* Agreed via e-mail

**S4-201341** is agreed.

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| [S4-201414](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201414.zip) | Use Case Update for AR/MR Device Type | Samsung R&D Institute UK | 10.4 |

**E-mail Discussion:**

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| [[10.4; 1414; 16Nov 1900 CET] CR on 26.928 - FS\_XR5G](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=32509) | teniou(TeniouGilles) | Fri, 13 Nov 2020 17:43:18 +0000 |
| [[10.4; 1414; 16Nov 1900 CET] CR on 26.928 - FS\_XR5G](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=31398) | teniou(TeniouGilles) | Mon, 16 Nov 2020 20:37:59 +0000 |

**Decision:**

* Agreed via e-mail
* Official CR will be created in S4-201507

**S4-201414** is agreed.

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| [S4-201507](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201507.zip) | CR 26.928-XXXX: Use Case Update for AR/MR Device Type | Samsung R&D Institute UK | 10.4 |

**S4-201507** is presented to SA4 plenary.

## 10.5 8K\_VR\_5G (Operation Points for 8K VR 360 Video over 5G)

WID:  [*SP-200667*](https://www.3gpp.org/ftp/tsg_sa/TSG_SA/TSGs_89E_Electronic/Docs/SP-200667.zip) New WID on 'Operation Points for 8K VR 360 Video over 5G'

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| [S4-201332](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201332.zip) | Proposed Timeplan for 8K\_VR\_5G (v0.0.1) | Intel (Rapporteur) | 10.5 |

**E-mail Discussion:**

none triggered

**Presenter: Ozgur Oyman (Intel)**

**Discussion:**

* No comments

**Decision:**

* agreed

**S4-201332** is agreed and is presented to SA4 plenary.

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| [S4-201333](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201333.zip) | Operation Points for 8K VR 360 Video | Intel | 10.5 |

**E-mail Discussion:**

none triggered

**Presenter: Ozgur Oyman (Intel)**

**Discussion:**

* Thomas: needs some updates based on the discussion on 1390
  + Ozgur: ok
* Thomas: 12K, may need to check if anything harms the processing. Likely not
* Thomas: Why not HDR?
  + Ozgur: We can add
* Igor: how to add the restrictions from 1390?
  + Ozgur: may need some updates in Annex.
* Igor: What does this sentence mean in 5.1.7.10?
  + Ozgur: Copy & Paste
  + Igor: Improve text
  + Ozgur: proposes to reference, not copy and paste.
  + Gilles: we agreed to define one separately
  + Thomas: this agreement was because it very different. We can reference now
  + Ozgur, Igor, Gilles: agree
* Igor: Is it intentional that Table 5.2-1 does not support tiled-based streaming in Main Video?
  + Thomas: yes this was done intentionally.
  + Igor: Can we do also flexible?
  + Thomas: work item seems to be clear
  + Ozgur: agree that 8K was based on Main Profile.
* Fabrice: support to avoid duplication of text
* Fabrice: Typo in 5.1.7.4?
  + Ozgur: seems correct - refers to the spatial resolution of the basic one.
  + Gilles: Does 8k have to support 4k signals?
* Thomas: We are doing more that the work item objective is requesting. What did the VR-IF ask us to do?
  + Ozgur: VR-IF would want us to define a very simple profile without RWP
  + Thomas: we should recheck the details with VR-IF. Maybe send an LS
  + Ozgur: Support the LS to VR-IF

**Decision:**

* Offline discussion to discuss agreement involving Gilles, Ozgur, Thomas, Igor
* We also create an LS in S4-201502.

**S4-201333** is revised to **S4-201501**.

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| [S4-201501](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201501.zip) | Operation Points for 8K VR 360 Video | Intel | 10.5 |

**Presenter: Ozgur Oyman (Intel)**

**Discussion:**

* No comments

**Decision:**

* Agreed as basis for future work

**S4-201501** is agreed.

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| [S4-201334](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201334.zip) | Decoding Capabilities and Operation Points for 8K VR 360 Video over 5GMS | Intel | 10.5 |

**E-mail Discussion:**

none triggered

**Presenter: Ozgur Oyman (Intel)**

**Discussion:**

* Thomas: I like the 8k decoding capabilities, but unrelated to TS 26.118
  + Gilles: Change 5 and 6 would be sufficient
  + Thomas: agree, still like 8K decoding capabilities
* Gilles: Do you want to support 8k encoding?
  + Ozgur: had a misunderstanding, 8K encoding is not needed.
  + Thomas: change 6 is also not needed.

**Decision:**

* Agreed as the basis taking into account the above information

**S4-201334** is noted.

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| [S4-201390](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201390.zip) | VR Device Capabilities | Qualcomm Incorporated | 10.5 |

**E-mail Discussion:**

none triggered

**Presenter: Thomas Stockhammer (Qualcomm)**

**Discussion:**

* Igor: The table is wrong, because the profile and level is not supported
  + Thomas: Not sure what should be done.
  + Igor: this is still not full support
  + Gilles: we have these limits also for other specs
* Igor: Are there limitations beyond 4320 in vertical domain?
  + Thomas: do not know yet
* Ozgur: How can we add this to the specification?
  + Thomas: I have not yet thought about
  + Ozgur: Combinations need to be checked carefully?
  + Thomas: I understand, interpolation may be possible, but would like to check first
* Gaelle: thanks, will this stay like this
  + Thomas: unclear, but likely will stay like this. What happens over time that the capabilities come down to lower end devices over time.

**Decision:**

* Agreed on proposal 1
* Not yet agree on proposal 2

**S4-201390** is noted.

## 10.6 FS\_VR\_CoGui (Feasibility Study on VR Streaming Conformance and Guidelines)

WID:  [*SP-190642*](https://www.3gpp.org/ftp/Meetings_3GPP_SYNC/SA/Docs/SP-190642) New SID on 'VR Streaming Conformance and Guidelines' (FS\_VR\_CoGui)

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| [S4-201506](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201506.zip) | Proposed Updated Work Plan for FS\_VR\_CoGui | Nokia (Rapporteur) | 10.6 |

**S4-201506** is presented to SA4 plenary.

## 10.7 FS\_5GVideo (Feasibility Study on 5G Video Codec Characteristics)

WID:  [*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)

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| S4-201391 | Proposed Updated Work Plan for FS\_5GVideo | Qualcomm Incorporated | 10.7 |

**S4-201391** is revised to **S4-201513**.

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| [S4-201513](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201513.zip) | Proposed Updated Work Plan for FS\_5GVideo | Qualcomm Incorporated | 10.7 |

**E-mail Discussion:**

triggered

**Decision:**

**S4-201513** is noted/agreed/revised.

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| [S4-201392](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201392.zip) | TR26.955: Proposed Editor's Update | Qualcomm Incorporated | 10.7 |

**E-mail Discussion:**

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| [[10.7; 1392; 13Nov 1400 CET] FS\_5GVideo: TR updates](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=8001) | teniou(TeniouGilles) | Thu, 12 Nov 2020 11:51:09 +0000 |
| [[10.7; 1392; 13Nov 1400 CET] FS\_5GVideo: TR updates](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=17249) | Thomas Stockhammer | Thu, 12 Nov 2020 22:21:00 +0000 |
| [[10.7; 1392; 13Nov 1400 CET] FS\_5GVideo: TR updates](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=22510) | Gaëlle Martin-Cocher | Thu, 12 Nov 2020 22:53:18 +0000 |
| [[10.7; 1392; 13Nov 1400 CET] FS\_5GVideo: TR updates](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=23321) | Thomas Stockhammer | Thu, 12 Nov 2020 23:00:35 +0000 |
| [[10.7; 1392; 13Nov 1400 CET] FS\_5GVideo: TR updates](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=29597) | teniou(TeniouGilles) | Fri, 13 Nov 2020 16:23:32 +0000 |
| [[10.7; 1392; 13Nov 1400 CET] FS\_5GVideo: TR updates](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=30159) | Thomas Stockhammer | Fri, 13 Nov 2020 17:03:24 +0000 |
| [[10.7; 1392; 13Nov 1400 CET] FS\_5GVideo: TR updates](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=2877) | Thomas Stockhammer | Mon, 16 Nov 2020 05:17:04 +0000 |
| [[10.7; 1392; 13Nov 1400 CET] FS\_5GVideo: TR updates](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=21176) | teniou(TeniouGilles) | Mon, 16 Nov 2020 13:11:17 +0000 |
| [[10.7; 1392; 13Nov 1400 CET] FS\_5GVideo: TR updates](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=22179) | Thomas Stockhammer | Mon, 16 Nov 2020 13:14:20 +0000 |
| [[10.7; 1392; 13Nov 1400 CET] FS\_5GVideo: TR updates](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=24008) | teniou(TeniouGilles) | Mon, 16 Nov 2020 13:21:17 +0000 |

**S4-201392** is revised **S4-201499**.

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| [S4-201499](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201499.zip) | TR26.955: Proposed Editor's Update | Qualcomm Incorporated | 10.7 |

**Presenter: Thomas Stockhammer (Qualcomm)**

**Discussion:**

* No discussion

**Decision:**

* agreed

**S4-201499** is agreed.

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| [S4-201393](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201393.zip) | pCR26.955: Evaluation framework | Qualcomm Incorporated | 10.7 |

**E-mail Discussion:**

none triggered

**Presenter: Thomas Stockhammer (Qualcomm)**

**Discussion:**

* Thomas: Anchors in 7 should be changed to Anchor Metrics
* Gaelle: We also have HM-SCC. Where to document?
  + Thomas: In the same section as HM
* Gaelle: Reference configurations general or specific?
  + Thomas: prefer specific
* Gaelle: Clause 7 do we document metrics here?
  + Thomas: this is the plan
* Gaelle: What do you mean by QP?
  + Thomas: This is about variations, could also be VBR
* Rajan: SCC as anchor? Not widely supported
  + Gilles: Part of profiles, but not widely used.
* Gaelle: Will editor implement the changes also for other scenarios
  + Thomas: yes
* Gaelle: also a typo in 5.2? i don't understand the first "change" sentence
  + Thomas

**Decision:**

* Agreed.

**S4-201393** is agreed.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201394](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201394.zip) | pCR26.955: Data Management | Qualcomm Incorporated | 10.7 |

**Presenter: Thomas Stockhammer (Qualcomm)**

**Discussion:**

* Gilles: How long will the web space be available?
  + Thomas: the CTA WAVE repository is expected to be available for a long time
* Gaelle: still miss the terminology
  + Thomas: should be consistent

**Decision:**

* agreed

**S4-201394** is agreed.

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| --- | --- | --- | --- |
| [S4-201395](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201395.zip) | pCR26.955: Proposed anchors for FullHD Streaming | Qualcomm Incorporated | 10.7 |

**Presenter: Thomas Stockhammer (Qualcomm)**

**Discussion:**

* Gilles: Sequence length is 60 seconds - do you really run such long sequences
  + Thomas: 1080p and low, so may be feasible, open to feedback.
  + Gilles: long sequences may hide issues, if complexity of sequences varies of time.
* Gaelle: 1080p Streaming may not be perfect if you want to use it generally
  + Thomas: agree
* Gilles: Add sequences under square brackets

**Decision:**

* Agreed with modification above.

**S4-201395** is agreed.

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| --- | --- | --- | --- |
| [S4-201396](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201396.zip) | pCR26.955: Proposed anchors for Messaging and Social Sharing | Qualcomm Incorporated | 10.7 |

**Presenter: Thomas Stockhammer (Qualcomm)**

**Discussion:**

* Gaelle: Is it natural content or mixed?
  + Thomas: Natural only
* Gaelle: Do we get 10 bit sequences?
  + Thomas: We should, HDR cameras
* Gilles: Add sequences in brackets
  + Thomas: Agreed

**Decision:**

* Agreed with modifications

**S4-201396** is agreed.

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| --- | --- | --- | --- |
| [S4-201425](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201425.zip) | pCR26.955: Overview on EVC | Qualcomm Incorporated | 10.7 |

**E-mail Discussion:**

|  |  |  |
| --- | --- | --- |
| [[10.7; 1425; 13Nov 1400 CET] FS\_5GVideo: EVC overview](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=11721) | teniou(TeniouGilles) | Thu, 12 Nov 2020 11:57:01 +0000 |
| [[10.7; 1425; 13Nov 1400 CET] FS\_5GVideo: EVC overview](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=27858) | teniou(TeniouGilles) | Fri, 13 Nov 2020 16:14:23 +0000 |
| [[10.7; 1425; 13Nov 1400 CET] FS\_5GVideo: EVC overview](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=31028) | Curcio, Igor (Nokia - FI/Tampere) | Fri, 13 Nov 2020 17:04:52 +0000 |
| [[10.7; 1425; 13Nov 1400 CET] FS\_5GVideo: EVC overview](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=39821) | teniou(TeniouGilles) | Fri, 13 Nov 2020 18:29:16 +0000 |
| [[10.7; 1425; 13Nov 1400 CET] FS\_5GVideo: EVC overview](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=40447) | Rajan Laxman Joshi | Sat, 14 Nov 2020 06:39:59 +0000 |
| [[10.7; 1425; 13Nov 1400 CET] FS\_5GVideo: EVC overview](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=33003) | teniou(TeniouGilles) | Mon, 16 Nov 2020 20:42:27 +0000 |

**Decision:**

* Offline discussions led to the revision of 1425 to 1503.

**S4-201425** is revised to **S4-201503**.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201503](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201503.zip) | pCR26.955: Overview on EVC | Samsung, Qualcomm Incorporated | 10.7 |

**Presenter: Rajan Laxman Joshi (Samsung)**

**Discussion:**

* Igor: temporary information in last paragraph. May go away
  + Gaelle: would like to remove paragraph
* Gaelle: would also like to change a few words
  + Rajan: it says that this is a design objectives
* Thomas: Urge that comments were late and now are really also different than late comments. I expect an agreement.

**Decision:**

* E-mail agreement.

**S4-201503** is revised to **S4-201512**.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201512](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201512.zip) | pCR26.955: Overview on EVC | Samsung, Qualcomm Incorporated | 10.7 |

**E-mail Discussion:**

triggered

**Decision:**

**S4-201513** is noted/agreed/revised.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201448](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201448.zip) | Classification of Sequences for Online Gaming scenario | Tencent, InterDigital | 10.7 |

**E-mail Discussion:**

|  |  |  |
| --- | --- | --- |
| [[10.7; 1448; 13Nov 1400 CET] FS\_5GVideo: Online gaming scenario](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=9849) | teniou(TeniouGilles) | Thu, 12 Nov 2020 11:51:40 +0000 |
| [[10.7; 1448; 13Nov 1400 CET] FS\_5GVideo: Online gaming scenario](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=20177) | Thomas Stockhammer | Thu, 12 Nov 2020 22:34:42 +0000 |
| [[10.7; 1448; 13Nov 1400 CET] FS\_5GVideo: Online gaming scenario](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=25351) | Lukasz Litwic | Fri, 13 Nov 2020 08:27:11 +0000 |
| [[10.7; 1448; 13Nov 1400 CET] FS\_5GVideo: Online gaming scenario](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=31897) | teniou(TeniouGilles) | Fri, 13 Nov 2020 17:17:42 +0000 |

**Decision:**

* **S4-201448** **revised** into **S4-201498**

**S4-201448** is revised to **S4-201498**.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201498](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201498.zip) | Classification of Sequences for Online Gaming scenario | Tencent, InterDigital | 10.7 |

**Presenter: Gilles Teniou (Tencent)**

**Discussion:**

* No discussion

**Decision:**

* Agreed for inclusion into TR

**S4-201498** is agreed.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201449](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201449.zip) | Screen Content sequences | Tencent | 10.7 |

**E-mail Discussion:**

|  |  |  |
| --- | --- | --- |
| [[10.7; 1449; 13Nov 1400 CET] FS\_5GVideo: Screen content sequences](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=10784) | teniou(TeniouGilles) | Thu, 12 Nov 2020 11:51:53 +0000 |
| [[10.7; 1449; 13Nov 1400 CET] FS\_5GVideo: Screen content sequences](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=21485) | Thomas Stockhammer | Thu, 12 Nov 2020 22:45:30 +0000 |
| [[10.7; 1449; 13Nov 1400 CET] FS\_5GVideo: Screen content sequences](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=26140) | teniou(TeniouGilles) | Fri, 13 Nov 2020 14:08:21 +0000 |
| [[10.7; 1449; 13Nov 1400 CET] FS\_5GVideo: Screen content sequences](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=26905) | Thomas Stockhammer | Fri, 13 Nov 2020 14:17:09 +0000 |
| [[10.7; 1449; 13Nov 1400 CET] FS\_5GVideo: Screen content sequences](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=28774) | teniou(TeniouGilles) | Fri, 13 Nov 2020 16:17:19 +0000 |
| [[10.7; 1449; 13Nov 1400 CET] FS\_5GVideo: Screen content sequences](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=78) | Thomas Stockhammer | Sun, 15 Nov 2020 11:17:01 +0000 |
| [[10.7; 1449; 13Nov 1400 CET] FS\_5GVideo: Screen content sequences](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=3881) | teniou(TeniouGilles) | Mon, 16 Nov 2020 08:03:19 +0000 |

**Decision:**

* The document **S4-201449** is then **agreed** with the addition of square brackets

**S4-201449** is agreed.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201450](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201450.zip) | Screen Content encoding configurations | Tencent, InterDigital | 10.7 |

**Presenter: Gilles Teniou (Tencent)**

**Discussion:**

* Thomas: Can we have more QP values to be better prepared for BD rate computation?
  + Gilles: Can we change the QP values, but not add more?
  + Michelle: adjust to sequence, but more can be rund
* Rajan: No overlap expected, if SCC is not usable
  + Thomas: is BD-rate the right tool for comparison?
* Gilles: adds more values

**Decision:**

* Agreeable with the addition of two QP values and a NOTE. But revision is done.

**S4-201450** is revised to **S4-201500**.

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| --- | --- | --- | --- |
| [S4-201500](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201500.zip) | Screen Content encoding configurations | Tencent, InterDigital | 10.7 |

**Presenter: Gilles Teniou (Tencent)**

**Discussion:**

* none

**Decision:**

* agreed for TR

**S4-201500** is agreed.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201455](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201455.zip) | Software Packages for 5G Video Characterization | Qualcomm Incorporated | 10.7 |

**Presenter: Thomas Stockhammer (Qualcomm)**

**Discussion:**

* Gilles: No-one is forced to use the script
  + Thomas: no, not needed, just a reference script
* Lukasz: Should we add some comments around run time?
  + Thomas: indeed, we can also look up the server if this already exists
* Rajan: for the metrics, it would be good if the same scripts are used
  + Thomas: do not wanna enforce, consider it as a verification tool
* Michel: What would be reference results?
  + Thomas: The results that are documented in the report
  + MIchel: some hand-tuning is necessary
  + Gilles: BD-rate is not part of the game
  + Thomas: finetuning manually makes me nervous, would like to avoid
* Details here: https://github.com/haudiobe/5GVideo

**Decision:**

* agreed

**S4-201455** is agreed.

## 10.8 FS\_XRTraffic (Feasibility Study on Typical Traffic Characteristics for XR Services and other Media)

WID: [*SP-200054*](https://www.3gpp.org/ftp/tsg_sa/TSG_SA/TSGS_87E_Electronic/Docs/SP-200054.zip) Feasibility Study on Typical Traffic Characteristics for XR Services and other Media

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| --- | --- | --- | --- |
| [S4-201335](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201335.zip) | Assumptions and Simulation Parameters for Viewport Dependent 3DoF Streaming | China Mobile Com. Corporation | 10.8 |

**E-mail Discussion:**

|  |  |  |
| --- | --- | --- |
| [[10.8; 1335; 16Nov 1200 CET] FS\_XRTraffic: Viewport dependent streaming](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=13485) | teniou(TeniouGilles) | Thu, 12 Nov 2020 12:07:19 +0000 |
| [[10.8; 1335; 16Nov 1200 CET] FS\_XRTraffic: Viewport dependent streaming](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=1338) | Thomas Stockhammer | Mon, 16 Nov 2020 04:37:09 +0000 |
| [[10.8; 1335; 16Nov 1200 CET] FS\_XRTraffic: Viewport dependent streaming](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=16151) | teniou(TeniouGilles) | Mon, 16 Nov 2020 11:54:38 +0000 |

**Decision:**

* Given the only (supportive) comment made, the document **S4-201335** is **agreed**.

**S4-201335** is agreed.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201336](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201336.zip) | Simulation System Overview for Viewport Dependent 3DoF Streaming | China Mobile Com. Corporation | 10.8 |

**E-mail Discussion:**

none triggered

**Presenter: Zhou Jiajun (CMCC)**

**Discussion:**

* Thomas: Content Delivery Protocol?
  + Zhou: existing protocols
* Gilles: In the diagram, is this what you want to evaluate?
  + Zhou: we expect to create some lines
* Ryan: Figure just illustration - Quality is better for 10 users than for 20?
  + Zhou: We can modify this - just an example.
* Yee Sin: It is an RD function? System capacity
  + Zhou: We provide several information in 1335. This is just illustration.

**Decision:**

* Agreed for PD.

**S4-201336** is agreed.

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| --- | --- | --- | --- |
| [S4-201339](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201339.zip) | Considerations for Joint UL and DL Traffic Modelling of XR Conversational Services | China Mobile Com. Corporation | 10.8 |

**E-mail Discussion:**

|  |  |  |
| --- | --- | --- |
| [[10.8; 1339; 16Nov 1200 CET] FS\_XRTraffic: traffic modeling for conversational scenario](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=14429) | teniou(TeniouGilles) | Thu, 12 Nov 2020 12:07:41 +0000 |
| [[10.8; 1339; 16Nov 1200 CET] FS\_XRTraffic: traffic modeling for conversational scenario](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=20865) | Bo Burman | Thu, 12 Nov 2020 22:37:52 +0000 |
| [[10.8; 1339; 17Nov 1400 CET] FS\_XRTraffic: traffic modeling for conversational scenario](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=16963) | teniou(TeniouGilles) | Mon, 16 Nov 2020 12:05:00 +0000 |
| [[10.8; 1339; 17Nov 1400 CET] FS\_XRTraffic: traffic modeling for conversational scenario](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=33891) | Bo Burman | Mon, 16 Nov 2020 21:23:15 +0000 |
| [[10.8; 1339; 17Nov 1400 CET] FS\_XRTraffic: traffic modeling for conversational scenario](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=24520) | Song XU | Mon, 16 Nov 2020 21:36:55 +0800 |
| [[10.8; 1339; 17Nov 1400 CET] FS\_XRTraffic: traffic modeling for conversational scenario](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=37632) | Isberg, Peter | Tue, 17 Nov 2020 10:11:52 +0000 |
| [[10.8; 1339; 17Nov 1400 CET] FS\_XRTraffic: traffic modeling for conversational scenario](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=46150) | Isberg, Peter | Tue, 17 Nov 2020 13:51:04 +0000 |
| [[10.8; 1339; 17Nov 1400 CET] FS\_XRTraffic: traffic modeling for conversational scenario](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=39168) | Song XU | Tue, 17 Nov 2020 19:49:59 +0800 |
| [[10.8; 1339; 17Nov 1400 CET] FS\_XRTraffic: traffic modeling for conversational scenario](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=41776) | Song XU | Tue, 17 Nov 2020 20:01:00 +0800 |

**Presenter: Song XU (CMCC)**

**Discussion:**

* Reference to e-mail discussion
* Peter: Questioning with motivation.
  + First part of clause 3 is to calculate the sum.
  + QoS should consider the sum of the option - can you explain more.
  + Song explains the details
* Peter: still not clear.
* Thomas: It seems that the assumption of independent uplink and downlink is challenged and that by this combined allocation, you may benefit. It is unclear on a high-level. We would need a concrete example
* Bo: we also commented on e-mail, would need more details on understanding if there is any
* naotaka: Quite an interesting topic - downlink and uplink. Relationship of uplink still unclear.

**Decision:**

* Provide a more detailed concrete example for upcoming meeting.
* Noted

**S4-201339** is noted.

|  |  |  |  |
| --- | --- | --- | --- |
| S4-201398 | Proposed Updates to Work Plan for FS\_XRTraffic | Qualcomm Incorporated | 10.8 |

**S4-201398** is revised to **S4-201514**.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201514](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201514.zip) | Proposed Updates to Work Plan for FS\_XRTraffic | Qualcomm Incorporated | 10.8 |

**S4-201514** is presented to SA4 plenary.

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| --- | --- | --- | --- |
| S4-201399 | [FS\_XRTraffic] Editor's Update to Permanent Document | Qualcomm Incorporated | 10.8 |

**E-mail Discussion:**

none triggered

**Presenter: Thomas Stockhammer (Qualcomm)**

**Discussion:**

* none

**Decision:**

* Agreed as baseline

**S4-201399** is agreed.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201505](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201505.zip) | [FS\_XRTraffic] Permanent Document v0.6.0 | Qualcomm Incorporated | 10.8 |

**S4-201505** is presented to SA4 plenary.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201400](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201400.zip) | [FS\_XRTraffic] Status Update of Simulation Software for Split Rendering | Qualcomm Incorporated | 10.8 |

**E-mail Discussion:**

none triggered

**Presenter: Thomas Stockhammer (Qualcomm)**

**Discussion:**

* No comments

**Decision:**

* Update permanent document

**S4-201400** is agreed.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201401](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201401.zip) | [FS\_XRTraffic] Updated Traffic Modelling for Split Rendering | Qualcomm Incorporated | 10.8 |

**E-mail Discussion:**

none triggered

**Presenter:**

**Discussion:**

* Thomas: unclear if slice size impacts the loss/delay rate
  + Yee-Sin: we should give them different packet sizes
* Thomas: encoding delay matters
  + Gaelle: we only use P-frame anyways
  + Thomas: but it about the encoding delays in the encoder
  + Gilles: constant.
  + Thomas: constant may not good enough
* Weidong: sample traces would be good.
  + Thomas:happy to work offline.

**Decision:**

* Update the PD

**S4-201401** is agreed.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201402](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201402.zip) | [FS\_XRTraffic] Traffic Model for Viewport dependent Streaming | Qualcomm Incorporated | 10.8 |

**E-mail Discussion:**

none triggered

**Presenter:**

**Discussion:**

* Ryan: Upload data rate?
  + Thomas: Clarify that upload is confusing - can remove
* Ryan: 3DOF or 6DOF
  + Thomas: 3DOF, but no difference expected

**Decision:**

* Agree without Uplink to PD

**S4-201402** is agreed.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201403](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201403.zip) | [FS\_XRTraffic] Traffic Model Overview and Status | Qualcomm Incorporated | 10.8 |

**E-mail Discussion:**

none triggered

**Presenter: Thomas Stockhammer (Qualcomm)**

**Discussion:**

* Qi: details on the bullet points
  + Thomas: explains, look into the PD
* Weidong: Traffic model Audio, video, pose?
  + Thomas: video and pose, audio seems lower volume

**Decision:**

* Agreed in principle, no action needed

**S4-201403** is agreed.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201404](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201404.zip) | [FS\_XRTraffic] Proposed Communication to RAN1 | Qualcomm Incorporated | 10.8 |

**S4-201404** is revised to **S4-201504**.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201504](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201504.zip) | [FS\_XRTraffic] Proposed Communication to RAN1 | Qualcomm Incorporated | 10.8 |

**E-mail Discussion:**

triggered

**Decision:**

**S4-201404** is noted/agreed/revised.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201422](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201422.zip) | Discussion on XR traffic model | vivo Mobile Communication Co., | 10.8 |

**E-mail Discussion:**

|  |  |  |
| --- | --- | --- |
| [[10.8; 1422; 16Nov 1200 CET] FS\_XRTraffic: XR traffic model](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=16317) | teniou(TeniouGilles) | Thu, 12 Nov 2020 12:08:47 +0000 |
| [[10.8; 1422; 16Nov 1200 CET] FS\_XRTraffic: XR traffic model](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=12452) | Thomas Stockhammer | Mon, 16 Nov 2020 10:59:28 +0000 |
| [[10.8; 1422; 16Nov 1200 CET] FS\_XRTraffic: XR traffic model](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=19531) | teniou(TeniouGilles) | Mon, 16 Nov 2020 12:23:34 +0000 |
| [[10.8; 1422; 16Nov 1200 CET] FS\_XRTraffic: XR traffic model](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=20434) | Thomas Stockhammer | Mon, 16 Nov 2020 12:25:39 +0000 |
| [[10.8; 1422; 17Nov 1400 CET] FS\_XRTraffic: XR traffic model](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=23091) | teniou(TeniouGilles) | Mon, 16 Nov 2020 13:16:14 +0000 |
| [[10.8; 1422; 17Nov 1400 CET] FS\_XRTraffic: XR traffic model](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=34752) | Xiaohang CHEN | Tue, 17 Nov 2020 12:51:29 +0800 |

**Presenter: Xiaohang Chen (vivo)**

**Discussion:**

* Clause 2.1 and 2.2 are agreed based e-mail.
* Clause 2.3 Xiaohang explains
  + Thomas: agree that the uplink traffic frequency can be modelled. For example only the latest pose is sent
  + Agree to update Observation 3.

**Decision:**

* Agreed with update for Observation 3.

**S4-201422** is agreed.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201490](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201490.zip) | FS\_XRTraffic: Uplink video | Sony Mobile Communications | 10.8 |

**E-mail Discussion:**

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| [[10.8; 1490; 16Nov 1200 CET] FS\_XRTraffic: Uplink Video](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=15389) | teniou(TeniouGilles) | Thu, 12 Nov 2020 12:08:07 +0000 |
| [[10.8; 1490; 16Nov 1200 CET] FS\_XRTraffic: Uplink Video](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=2277) | Thomas Stockhammer | Mon, 16 Nov 2020 04:44:09 +0000 |
| [[10.8; 1490; 16Nov 1200 CET] FS\_XRTraffic: Uplink Video](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=9792) | Isberg, Peter | Mon, 16 Nov 2020 10:42:25 +0000 |
| [[10.8; 1490; 16Nov 1200 CET] FS\_XRTraffic: Uplink Video](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=17845) | teniou(TeniouGilles) | Mon, 16 Nov 2020 12:17:31 +0000 |
| [[10.8; 1490; 16Nov 1200 CET] FS\_XRTraffic: Uplink Video](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=18629) | Isberg, Peter | Mon, 16 Nov 2020 12:22:32 +0000 |

**Decision:**

* The contribution **S4-201490** is **agreed** and will be **documented into the permanent document**.
* As it remains a general consideration of the video uplink, additional contributions are expected in the future on this topic.

**S4-201490** is agreed.

## 10.9 FS\_5GSTAR (Feasibility Study on 5G Glass-type AR/MR Devices)

WID: [SP\_200399](http://www.3gpp.org/ftp/tsg_sa/TSG_SA/TSGS_88E_Electronic/Docs/SP-200399.zip) New SID on 5G Glass-type AR/MR Devices

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201337](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201337.zip) | New Use Case on AR gaming Using AR/MR Device | China Mobile Com. Corporation | 10.9 |

**E-mail Discussion:**

none triggered

**Presenter:** Yuijan Yin (CMCC)

**Discussion:**

* Igor: ok to document this

**Decision:**

**S4-201337** is agreed.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201338](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201338.zip) | Architectures for Glass-type AR/MR Services | China Mobile Com. Corporation | 10.9 |

**Presenter: Yujian Yin (CMCC)**

**Discussion:**

* Ryan: Join the discussion for 1378
* Thomas: This is good, but we need to identify where the 5G modem is to really understand where we need to work as 3GPP. This also relates to other device architectures
* Thomas: Urge for better coordination from rapporteur for offline.

**Decision:**

* No agreement.

**S4-201338** is noted.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201378](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201378.zip) | FS\_5GSTAR: Generic reference device functional structures pCR | Samsung Electronics Iberia SA | 10.9 |

**E-mail Discussion:**

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| --- | --- | --- |
| [[10.9; 1378; 17Nov 1400 CET] FS\_5GSTAR: Generic reference device functional structures pCR](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=38858) | teniou(TeniouGilles) | Fri, 13 Nov 2020 18:22:02 +0000 |
| [[10.9; 1378; 17Nov 1400 CET] FS\_5GSTAR: Generic reference device functional structures pCR](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=8809) | Thomas Stockhammer | Mon, 16 Nov 2020 10:41:43 +0000 |
| [[10.9; 1378; 17Nov 1400 CET] FS\_5GSTAR: Generic reference device functional structures pCR](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=27729) | champelmary-luc | Mon, 16 Nov 2020 18:00:16 +0000 |
| [[10.9; 1378; 17Nov 1400 CET] FS\_5GSTAR: Generic reference device functional structures pCR](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=28661) | Thorsten Lohmar | Mon, 16 Nov 2020 18:47:54 +0000 |
| [[10.9; 1378; 17Nov 1400 CET] FS\_5GSTAR: Generic reference device functional structures pCR](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=29470) | Thomas Stockhammer | Mon, 16 Nov 2020 19:55:37 +0000 |
| [[10.9; 1378; 17Nov 1400 CET] FS\_5GSTAR: Generic reference device functional structures pCR](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=30267) | Thorsten Lohmar | Mon, 16 Nov 2020 20:11:41 +0000 |
| [[10.9; 1378; 17Nov 1400 CET] FS\_5GSTAR: Generic reference device functional structures pCR](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=36597) | Ali El Essaili | Tue, 17 Nov 2020 07:52:51 +0000 |
| [[10.9; 1378; 17Nov 1400 CET] FS\_5GSTAR: Generic reference device functional structures pCR](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=38405) | Thomas Stockhammer | Tue, 17 Nov 2020 10:27:36 +0000 |
| [[10.9; 1378; 17Nov 1400 CET] FS\_5GSTAR: Generic reference device functional structures pCR](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=42582) | Bhullar, Gurdeep Singh | Tue, 17 Nov 2020 13:12:00 +0000 |
| [[10.9; 1378; 17Nov 1400 CET] FS\_5GSTAR: Generic reference device functional structures pCR](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=49571) | Thomas Stockhammer | Tue, 17 Nov 2020 14:43:26 +0000 |
| [[10.9; 1378; 17Nov 1400 CET] FS\_5GSTAR: Generic reference device functional structures pCR](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=35552) | Eric Yip | Tue, 17 Nov 2020 16:11:27 +0900 |
| [[10.9; 1378; 17Nov 1400 CET] FS\_5GSTAR: Generic reference device functional structures pCR](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=48064) | Eric Yip | Tue, 17 Nov 2020 23:35:06 +0900 |
| [[10.9; 1378; 17Nov 1400 CET] FS\_5GSTAR: Generic reference device functional structures pCR](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=48914) | Eric Yip | Tue, 17 Nov 2020 23:39:59 +0900 |

**Presenter:**

**Discussion:**

**Decision:**

* revise

**S4-201378** is revised to **S4-201508**.

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| --- | --- | --- | --- |
| [S4-201508](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201508.zip) | FS\_5GSTAR: Generic reference device functional structures pCR | Samsung Electronics Iberia SA | 10.9 |

**E-mail Discussion:**

triggered

**Decision:**

**S4-201508** is revised/agreed/noted.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201379](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201379.zip) | FS\_5GSTAR: Case study for generic reference device functional structures | Samsung Electronics Iberia SA | 10.9 |

**E-mail Discussion:**

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| --- | --- | --- |
| [[10.9; 1379; 17Nov 1400 CET] FS\_5GSTAR: Case study for generic reference device functional structure](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=37884) | teniou(TeniouGilles) | Fri, 13 Nov 2020 18:21:56 +0000 |
| [[10.9; 1379; 17Nov 1400 CET] FS\_5GSTAR: Case study for generic reference device functional structure](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=11113) | Thomas Stockhammer | Mon, 16 Nov 2020 10:45:52 +0000 |
| [Re: [10.9; 1379; 17Nov 1400 CET] FS\_5GSTAR: Case study for generic reference device functional structure](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=51590) | teniou(TeniouGilles) | Tue, 17 Nov 2020 16:20:52 +0000 |

**Presenter: Eric Yip (Samsung)**

**Discussion:**

* Proposal is trigger an e-mail discussion

**Decision:**

* The document **S4-201379** is **agreed**. The clause 2 will be included into the permanent document with the addition of a note at the beginning, indicating that *the proposed architectures in this section may be refined based on further analysis on device types*.

**S4-201379** is agreed.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201405](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201405.zip) | [FS\_5GSTAR] Device Considerations | Qualcomm Incorporated | 10.9 |

**E-mail Discussion:**

|  |  |  |
| --- | --- | --- |
| [[10.9; 1405; 17Nov 1400 CET] FS\_5GSTAR: Device considerations](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=36950) | teniou(TeniouGilles) | Fri, 13 Nov 2020 18:21:51 +0000 |
| [[10.9; 1405; 17Nov 1400 CET] FS\_5GSTAR: Device considerations](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=27043) | Ralf Schaefer | Mon, 16 Nov 2020 16:39:25 +0000 |
| [[10.9; 1405; 17Nov 1400 CET] FS\_5GSTAR: Device considerations](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=35800) | Ali El Essaili | Tue, 17 Nov 2020 07:16:22 +0000 |
| [[10.9; 1405; 17Nov 1400 CET] FS\_5GSTAR: Device considerations](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=44399) | Thomas Stockhammer | Tue, 17 Nov 2020 13:32:36 +0000 |
| [[10.9; 1405; 17Nov 1400 CET] FS\_5GSTAR: Device considerations](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=45187) | Thomas Stockhammer | Tue, 17 Nov 2020 13:40:08 +0000 |
| [[10.9; 1405; 17Nov 1400 CET] FS\_5GSTAR: Device considerations](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=46943) | Ralf Schaefer | Tue, 17 Nov 2020 13:55:32 +0000 |
| [[10.9; 1405; 17Nov 1400 CET] FS\_5GSTAR: Device considerations](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=47825) | 이학주 | Tue, 17 Nov 2020 23:23:51 +0900 |

**Presenter:**

**Discussion:**

* ML: Bluetooth not necessary to be added
  + Ralf: it is present
  + Thomas: ok, but not relevant
  + ML: Wifi is relevant
* Ralf: We believe that things are moving and things can be very different
  + Thomas: These are facts

**Decision:**

* No agreement, people want to use any devices, and do lots of use cases.

**S4-201405** is noted.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201406](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201406.zip) | [FS\_5GSTAR] Proposed Key Issues | Qualcomm Incorporated | 10.9 |

**E-mail Discussion:**

none triggered

**Presenter: Thomas Stockhammer (Qualcomm)**

**Discussion:**

* Gaelle: Are the use cases selected already?
  + Thomas: no, but simple. Our assumption was always that we do stand-alone glasses only
  + Ralf: We want to do more, priority is ok
  + Eric: We do device architectures for glass and hololens
  + Ryan: converted and revised in 1378. Nothing new anymore.

**Decision:**

* No agreement, people want to use any devices, and do lots of use cases.

**S4-201406** is noted.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201409](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201409.zip) | FS\_5GSTAR: Use case categorization (Revised) | Samsung R&D Institute UK | 10.9 |

**E-mail Discussion:**

none triggered

**Presenter:** Hakju Ryan Lee (Samsung)

**Discussion:**

* Thomas: I believe we are away from reality. The media characteristics can only be determined once we have a detailed architectural decomposition and identify the media flows. Disagree with the assignment of delivery characteristics
  + Ralf: we can revisit later
  + Eric: we do requirements now and functional decomposition later.
  + Thomas: Do not see how this characterization is of any use. It is more confusing now. It does not reflect the main key.
  + Jaeyeon: Make constructive suggestion
  + Thomas: I suggest to not do characterization right now. Focus on a few key simple use cases and understand how they map
  + Mary-Luc: Agree that we need an architecture first.
* Gilles: proposes to park the document for now and revisit once we progress on the architecture.

**Decision:**

* Parked for now, we will revisit later
* Noted in a later session

**S4-201409** is noted.

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| --- | --- | --- | --- |
| [S4-201410](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201410.zip) | FS\_5GSTAR: pCR on Related Work for TR 26.998 | Samsung R&D Institute UK | 10.9 |

**E-mail Discussion:**

triggered

**Decision:**

**S4-201410** is noted/agreed/revised.

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| --- | --- | --- | --- |
| [S4-201411](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201411.zip) | FS\_5GSTAR Permanent Document v0.1.0 | Samsung R&D Institute UK | 10.9 |

**E-mail Discussion:**

|  |  |  |
| --- | --- | --- |
| [[10.9; 1411; 16Nov 1900 CET] FS\_5GSTAR permanent document](https://list.etsi.org/scripts/wa.exe?A2=ind2011B&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=35289) | teniou(TeniouGilles) | Fri, 13 Nov 2020 17:51:51 +0000 |
| [[10.9; 1411; 16Nov 1900 CET] FS\_5GSTAR permanent document](https://list.etsi.org/scripts/wa.exe?A2=ind2011C&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=32093) | teniou(TeniouGilles) | Mon, 16 Nov 2020 20:40:21 +0000 |

**Decision:**

* agreed

**S4-201411** is agreed.

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| --- | --- | --- | --- |
| [S4-201412](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201412.zip) | Proposed Updates to Work Plan for FS\_5GSTAR | Samsung R&D Institute UK | 10.9 |

**E-mail Discussion:**

none triggered

**Presenter:** Hakju Ryan Lee (Samsung)

**Discussion:**

* Thomas: Qualcomm can host, Calls should be 2 hours.
  + Ryan: agree

**Decision:**

* revise

**S4-201412** is revised to **S4-201509**.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201509](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201509.zip) | Proposed Updates to Work Plan for FS\_5GSTAR | Samsung R&D Institute UK | 10.9 |

**S4-201509** is agreed without presentation and will be presented to SA4 plenary.

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| --- | --- | --- | --- |
| [S4-201413](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201413.zip) | FS\_5GSTAR: pCR on Use case for TR 26.998 | Samsung R&D Institute UK | 10.9 |

**E-mail Discussion:**

none triggered

**Presenter:** Hakju Ryan Lee

**Discussion:**

* none

**Decision:**

* agreed

**S4-201413** is agreed.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201416](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201416.zip) | FS\_5GSTAR: pCR on Use cases for AR Conversational | Huawei Technologies R&D UK | 10.9 |

**E-mail Discussion:**

none triggered

**Presenter: Teng**

**Discussion:**

* Ryan: We have agreed a rule that we only want to move use cases that differentiate from other ones. This one seems to be good enough to move them.
* Gilles: Clause 5?
  + Ryan: No - should be Annex

**Decision:**

* Agreed with the comments above

**S4-201416** is agreed.

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| --- | --- | --- | --- |
| [S4-201423](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201423.zip) | [FS\_5GSTAR] pCR on the use case of volumetric video streaming | Fraunhofer HHI | 10.9 |

**E-mail Discussion:**

none triggered

**Presenter: Gurdeep Singh**

**Discussion:**

* Ralf: What information do you need for the attribute? Light in Scene influencing the rendering or the other way around?
  + Gurdeep: either use case is possible
* Igor: What about pre-conditions? Is it saying that the content can be captured with mesh or point cloud? What about the bitrates?
  + Gurdeep: says 37 MBit/s
  + Igor: can you add updated numbers
* Ralf: Angular attributes are much more complex. Likely not possible on a device.
  + Gilles: needs to be studied
* Peter: these are not QoE parameters, they are QoS
  + Gilles: Agree. QoE is the media perception
  + Peter: QoE is what the user perceives
  + Gilles: Proposal
  + Peter: Write QoE-related aspects

**Decision:**

* Agreed with the comments above

**S4-201423** is agreed.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201442](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201442.zip) | 5GSTAR updates to use-case on AR Conferencing | Ericsson LM | 10.9 |

**E-mail Discussion:**

none triggered

**Presenter: Ali**

**Discussion:**

* Ralf: V-PCC is mentioned, so the numbers look a bit high. Compression is 1-300. G-PCC is also mentioned, the numbers are possibly different.
  + Mary-Luc: Can we avoid discussing solution space
  + Gilles: Just numbers, should be part of feasibility
  + Mary-Luc: good to add to feasibility
  + Ali: on compression ratio - give bitrate rate ideas. Other details depend on pre-conditions, e.g. sequences.
  + Ralf: press release says different. Either remove or make correct
  + Imed: No evaluation was done on any of the codecs. So this should be part of the study.
  + Gilles: mentioning the numbers as requirements is not appropriate. Better moved to feasibility.
* Gilles: propose to move this to feasibility.
* Ali: discussion is back and forward. The numbers were asked.
* Ralf: Let’s just fix the numbers

**Decision:**

* Revise document, add reference to numbers, move to feasibility.

**S4-201442** is revised to **S4-201497**.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201497](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201497.zip) | 5GSTAR updates to use-case on AR Conferencing | Ericsson LM | 10.9 |

**E-mail Discussion:**

triggered

**Decision:**

**S4-201497** is revised/agreed/noted.

## 10.11 Liaisons and Liaison Responses

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| [S4-201502](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201502.zip) | LS to VR-IF on Operation Points for 8K VR 360 Video | Video SWG | 10.11 |

**E-mail Discussion:**

triggered

**Decision:**

**S4-201502** is noted/agreed/revised.

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201511](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201511.zip) | Potential Reply LS to MPEG MPEG-I V-PCC | Samsung | 10.11 |

**S4-201511** is presented to SA4 plenary.

## 10.12 Any Other Business

The report will be made available in [**S4-201516**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201516.zip)**.**

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-201516](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_111-e/Docs/S4-201516.zip) | VIDEO SWG Report during SA4#111-e | VIDEO SWG Chair (Tencent) | 13.5 |

## 10.13 Work Plan

See time plans for the individual Study items.

## 10.14 Close of the session

The chairman thanked the participants. The participants thanked the chairman.

The online session was closed on November 18, 2020 at 18:11 (CET).

E-mail approval for documents will conclude on November 19, 2020 19:00 (CET)

## 10.15 Participants

|  |  |  |  |
| --- | --- | --- | --- |
| **NAME** |  | **COMPANY** | **Attended** |
| Stockhammer | **Thomas** | **Qualcomm Incorporated** | yes |
| Teniou | **Gilles** | **Tencent** |  |
| Curcio | **Igor** | **Nokia** | yes |
| Oh | **Sejin** | **LG Electronics Inc.** | yes |
| Lee | **Brian** | **Dolby Laboratories** |  |
| Singh | **Gurdeep** | **Fraunhofer HHI** | yes |
| Thienot | **Cedric** | **Expway** |  |
| Tan | **Peng** | **TELUS** |  |
| Champel | **Mary-Luc** | **XiaoMi** |  |
| Yee Sin | **Chan** | **Facebook** |  |
| Iraj | **Sodagar** | **Tencent** |  |
| Richard | **Bradbury** | **BBC R&D** |  |
| Henri | **Fourdeux** | **InterDigital** | yes |
| Choi | **Kiho** | **Samsung Electronics** |  |
| Michel | **Kerdranvat** | **InterDigital** |  |
| Ahmed | **Hamza** | **InterDigital** | yes |
| Bo | **Burman** | **Ericsson** | yes |
| Lee | **Ryan** | **Samsung Electronics** | yes |
| Hu | **James** | **AT&T** |  |
| Isberg | **Peter** | **Sony** | yes |
| Jung | **Kyunghun** | **Facebook** | Yes |
| Lemotheux | **Julien** | **Orange** | yes |
| Oyman | **Ozgur** | **Intel** | yes |
| Srinivas | **Gudumasu** | **InterDigital** | yes |
| Zhang | **Zhuoyun** | **Tencent** |  |
| Biatek | **Thibaud** | **ATEME** |  |
| Jelinek | **Milan** | **VoiceAge Corporation** |  |
| Plante | **Fabrice** | **Apple** | yes |
| Thomas | **Emmanuel** | **KPN N.V.** | yes |
| Shiferaw | **Yonatan** | **KPN N.V.** | yes |
| Ahsan | **Saba** | **Nokia Corporation** | yes |
| Gunkel | **Simon** | **KPN N.V.** | yes |
| Ali | **El Essaili** | **Ericsson** | yes |
| Mauricio | **Aracena** | **Ericsson** | yes |
| Thorsten | **Lohmar** | **Ericsson** | yes |
| Lukasz | **Litwic** | **Ericsson** | yes |
| Feiten | **Bernhard** | **Deutsche Telekom AG** | yes |
| Szucs | **Paul** | **Sony Europe B.V.** | yes |