Video SWG Minutes during SA4#109

## 10.1 Opening of the session

Mr. Gilles Teniou (Orange, Chairman of Video SWG) opens

* E-mail approval process May 25, 2020 at 21:25 (CEST)
* the online session on May 26, 2020 at 16:30 (CEST).

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

The minutes are shared [online](https://docs.google.com/document/d/1GhzxAh-quFZSfprz1dC1oJzRBURA1hXd0pkoSzyow9E/edit?usp=sharing).

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

* <https://list.etsi.org/scripts/wa.exe?A1=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO>
* <https://www.apexstandards.com/emailsearch.php?thread=SA+4+VIDEO&domain=&sender=&subject=&body=&date0=2020-05-25&date1=2020-06-02&key=MjzhU5lD4q>

Latest Timestamp for e-mail discussions: Wed, 27 May 2020 11:59:59 CEST

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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| --- | --- | --- | --- |
| TDOC | Title | Source | Agenda Item |
| [S4-200736](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200736.zip) | LS from SC 29/WG 11 (ISO/IEC JTC 1/SC 29/WG 11) to 3GPP SA WG 4 on CMAF [SC 29/WG 11 N 19266] | ISO/IEC JTC 1/SC 29/WG 11 | 10.3 |
| [S4-200804](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200804.zip) | MPEG-I Video-based Point Cloud Compression [SC 29/WG 11 N 19377] | ISO/IEC JTC 1/SC 29/WG 11 | 10.3 |
| [S4-200852](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200852.zip) | Making some space for new codecs: Take H.263 to rest | Qualcomm Incorporated | 10.4 |
| [S4-200853](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200853.zip) | Removing H.263 | Qualcomm Incorporated | 10.4 |
| [S4-200854](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200854.zip) | Removing H.263 | Qualcomm Incorporated | 10.4 |
| [S4-200855](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200855.zip) | Removing H.263 | Qualcomm Incorporated | 10.4 |
| [S4-200856](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200856.zip) | Removing H.263 | Qualcomm Incorporated | 10.4 |
| [S4-200857](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200857.zip) | Removing H.263 | Qualcomm Incorporated | 10.4 |
| [S4-200762](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200762.zip) | Proposed Updated Work Plan for FS\_5GVideo | Qualcomm Incorporated | 10.6 |
| [S4-200763](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200763.zip) | TR26.955: Proposed Editor's Update | Qualcomm Incorporated | 10.6 |
| [S4-200764](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200764.zip) | pCR26.955: Messaging and Social Sharing Scenario | Qualcomm Incorporated | 10.6 |
| [S4-200765](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200765.zip) | pCR26.955: Gaming and Screen Content Scenario | Qualcomm Incorporated | 10.6 |
| [S4-200766](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200766.zip) | pCR26.955: Consolidated Evaluation Conditions | Qualcomm Incorporated | 10.6 |
| [S4-200767](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200767.zip) | [5G Video] First thoughts on evaluation metrics | Qualcomm Incorporated | 10.6 |
| [S4-200846](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200846.zip) | 4K-TV Scenario for FS\_5GVideo | ATEME, InterDigital, Orange, Qualcomm | 10.6 |
| [S4-200768](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200768.zip) | Proposed Updates to Work Plan for FS\_XRTraffic | Qualcomm Incorporated | 10.7 |
| [S4-200769](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200769.zip) | Proposed Skeleton Draft CR for XR Traffic | Qualcomm Incorporated | 10.7 |
| [S4-200770](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200770.zip) | Proposed Updates to Permanent Document | Qualcomm Incorporated | 10.7 |
| [S4-200771](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200771.zip) | [FS\_XRTraffic] System Design Assumptions for Split Rendering | Qualcomm Incorporated | 10.7 |
| [S4-200772](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200772.zip) | [FS\_XRTraffic] Considerations for Traffic Modelling for Split Rendering | Qualcomm Incorporated | 10.7 |
| [S4-200725](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200725.zip) | New SID on 5G Glass-type AR/MR Devices | Samsung Electronics France SA | 10.8 |
| [S4-200776](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200776.zip) | new SID on AR Conversational Services for Terminals | HUAWEI TECHNOLOGIES Co. Ltd. | 10.8 |

## 10.3 Reports and liaisons from other groups

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| [S4-200736](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200736.zip) | LS from SC 29/WG 11 (ISO/IEC JTC 1/SC 29/WG 11) to 3GPP SA WG 4 on CMAF [SC 29/WG 11 N 19266] | ISO/IEC JTC 1/SC 29/WG 11 |

**E-Mail Discussion:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Gilles Teniou | ORANGE | 2020-05-25 (Mon)  23:25:02 DE | [10.3, LS, 736, 27MAY 0600 CEST] LS from MPEG on CMAF | Dear VIDEO SWG colleagues, I declare the email agreement process started on the Tdoc indicated in the subject line. The document is available here: S4-200736.zip [FILE](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200736.zip) Note from the chair: \* This is a reply LS from MPEG indicating that they will study our detailed response in 3GPP LS S4-200536 between "now" and their next meeting. \* It is to inform us that, .. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=3506) |
| Gilles Teniou | ORANGE | 2020-05-27 (Wed)  07:35:19 DE | [10.3, LS, 736, 27MAY 0600 CEST] LS from MPEG on CMAF | Dear all, No comment received, S4-200736 is noted. Best regards, Gilles De : ".. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=26340) |

**S4-200736** is **noted.**

|  |  |  |
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| [S4-200804](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200804.zip) | MPEG-I Video-based Point Cloud Compression [SC 29/WG 11 N 19377] | ISO/IEC JTC 1/SC 29/WG 11 |

**Presenter: Rajan Joshi (Samsung)**

**Discussion:**

* Rajan presents also the linked slides
* Thomas: as related to AR study, does it work on AR glasses
  + Rajan: good study point
  + Madhukar: seems to be possible, especially in tethered.
* Igor: we have invested and implemented, we would like to bring this to 3GPP
  + Gilles: for 3GPP we need to identify service scenarios. I am worried about technologies being presented that want to identify a problem.
* Ralf: we support V-PCC, we believe that bitrates are suitable. This is the right time
  + Gilles: we need to find the applications for this. Please come with services

**Decision:**

* No action is needed.

**S4-200804** is **noted.**

## 10.4 CRs to Features in Release 15 and earlier

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| [S4-200852](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200852.zip) | Making some space for new codecs: Take H.263 to rest | Qualcomm Incorporated |

**E-Mail Discussion:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Gilles Teniou | ORANGE | 2020-05-25 (Mon)  23:26:17 DE | [10.4, Maintenance, 852, 27MAY 0600 CEST] Take H.263 out of 3GPP specs | Dear VIDEO SWG colleagues, I declare the email agreement process started on the Tdoc indicated in the subject line. The document is available here (in the Inbox): S4-200852.zip [FILE](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Inbox/S4-200852.zip) (link will be broken when moved to the [FILE](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs) Docs [FILE](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs) folder<.. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=4430) |
| Gilles Teniou | ORANGE | 2020-05-27 (Wed)  07:37:48 DE | [10.4, Maintenance, 852, 27MAY 0600 CEST] Take H.263 out of 3GPP specs | Dear all, No comment received, S4-200852 is agreed and we will try to find a date/time for dealing with associated CRs. Best regards, Gilles De : ".. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=27692) |
| David Singer |  | 2020-05-27 (Wed)  17:25:59 DE | [10.4, Maintenance, 852, 27MAY 0600 CEST] Take H.263 out of 3GPP specs | I don’t object, but I think it might be a mistake to remove all mention of H.263. Like JPEG, I have a sense it’s still the baseline ‘lingua franca’. I’m trying to get real information on its actual field usage, but this is taking a while. > On May 26, 2020, at 22:37 , Gilles Teniou <.. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=39162) |
| Thomas Stockhammer | QUALCOMM | 2020-05-27 (Wed)  17:31:20 DE | [10.4, Maintenance, 852, 27MAY 0600 CEST] Take H.263 out of 3GPP specs | Dave, The information remains in earlier Releases, so it is not removed. Thomas ----.. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=40049) |
| David Singer |  | 2020-05-27 (Wed)  18:14:39 DE | [10.4, Maintenance, 852, 27MAY 0600 CEST] Take H.263 out of 3GPP specs | > On May 27, 2020, at 8:31 , Thomas Stockhammer < | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=40708) |
| Gilles Teniou | ORANGE | 2020-05-27 (Wed)  21:50:00 DE | [10.4, Maintenance, 852, 27MAY 0600 CEST] Take H.263 out of 3GPP specs | Dave, I¹m not sure JPEG and H.263 are comparable. JPEG remains massively used in many platforms. I¹m not aware of any H.263 service acting these days. My only wonder is if MMS still uses it for compliance with older phones but the operator MMSC can do the transcoding. Gilles Le 27/05/2020 18:14, « 3GPP\_TSG\_SA\_WG4\_VIDEO on behalf of David Singer » <.. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=41560) |
| David Singer |  | 2020-05-27 (Wed)  21:54:18 DE | [10.4, Maintenance, 852, 27MAY 0600 CEST] Take H.263 out of 3GPP specs | Right, they are not directly comparable. But I want to take a moment to check whether a note, warning, etc. should be in there or whether there are circumstances where the terminal either has to decode 263 or lacks information and is forced to back down to encode 263. I don’t think so but we should check... | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=42373) |
| Thomas Stockhammer | QUALCOMM | 2020-05-27 (Wed)  22:05:08 DE | [10.4, Maintenance, 852, 27MAY 0600 CEST] Take H.263 out of 3GPP specs | Dave, Please check. 852 is just the motivation. The detailed draft CRs are prepared in the 853-858 and will be discussed in the telco June 9. Your input and comments on these drafts is most welcome, preferably before the submission deadline on June 5, 2020. Thanks Thomas ----.. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=42907) |
| Gilles Teniou | ORANGE | 2020-05-27 (Wed)  22:06:35 DE | [10.4, Maintenance, 852, 27MAY 0600 CEST] Take H.263 out of 3GPP specs | Agreed, Could such a check be done by the telco on this topic planned on June 9th? Gilles Le 27/05/2020 21:54, « David Singer » <.. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=43772) |
| David Singer |  | 2020-05-28 (Thu)  00:27:29 DE | [10.4, Maintenance, 852, 27MAY 0600 CEST] Take H.263 out of 3GPP specs | I’ll try to have the data by then indeed. As I say, I am not opposed in principle, just want to be sure that we give the modern implementer any needed guidance about compatibility. Maybe none is needed. > On May 27, 2020, at 13:06 , Gilles Teniou <.. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=44714) |

**Decision:**

* A telco is held on June 9, 2020 at 3pm - 5pm cest on this matter.
* See details on workplan under 10.11.

**S4-200852** is **agreed.**

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| --- | --- | --- |
| [S4-200853](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200853.zip) | Removing H.263 | Qualcomm Incorporated |

**S4-200853** is **not treated as submitted late.**

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| [S4-200854](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200854.zip) | Removing H.263 | Qualcomm Incorporated |

**S4-200854** is **not treated as submitted late.**

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| --- | --- | --- |
| [S4-200855](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200855.zip) | Removing H.263 | Qualcomm Incorporated |

**S4-200855** is **not treated as submitted late.**

|  |  |  |
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| [S4-200856](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200856.zip) | Removing H.263 | Qualcomm Incorporated |

**S4-200856** is **not treated as submitted late.**

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| [S4-200857](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200857.zip) | Removing H.263 | Qualcomm Incorporated |

**S4-200857** is **not treated as submitted late.**

## 10.5 CRs to Features in Release 16

none

## 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)

none

## 10.7 FS\_5GVideo (Feasibility Study on 5G Video 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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| [S4-200762](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200762.zip) | Proposed Updated Work Plan for FS\_5GVideo | Qualcomm Incorporated |

**Presenter:** Thomas Stockhammer (Qualcomm)

**Discussion:**

* No changes, but changes in wrong doc

**Decision:**

* Revise - e-mail agreement may be started

**S4-200762** is **revised to S4-200890.**

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| [S4-200890](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200890.zip) | Proposed Updated Work Plan for FS\_5GVideo | Qualcomm Incorporated |

**E-mail Discussion:**

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| --- | --- | --- | --- | --- | --- |
| Gilles Teniou | ORANGE | 2020-05-26 (Tue)  22:59:31 DE | [10.6, FS\_5GVideo, 890, 28MAY 2000 CEST] FS\_5GVideo timeplan | Dear VIDEO SWG colleagues, I declare the email agreement process started on the Tdoc indicated in the subject line. The document is available here (in the Inbox): S4-200890.zip [FILE](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Inbox/S4-200890.zip) (link will be broken when moved to the [FILE](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs) Docs [FILE](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs) folder<.. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=17531) |

See discussion around S4-200892.

**S4-200890** is **revised to S4-200896.**

**S4-200896 and sent for e-mail agreement.**

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| [S4-200896](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200896.zip) | Work Plan for FS\_5GVideo v | Qualcomm Incorporated |

**E-mail Discussion:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Gilles Teniou | ORANGE | 2020-05-29 (Fri) 11:16:19 DE | [10.6, FS\_5GVideo, 896, 2JUN 1200 CEST] FS\_5GVideo workplan | Dear VIDEO SWG colleagues, I declare the email agreement process started on the Tdoc indicated in the subject line. The document is available here (in the Inbox): S4-200896.zip [FILE](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Inbox/S4-200896.zip) (link will be broken when moved to the [FILE](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs) Docs [FILE](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs) folder<.. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005E&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=5851) |

**[add any additional e-mails]**

**S4-200896 [is agreed].**

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| [S4-200763](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200763.zip) | TR26.955: Proposed Editor's Update | Qualcomm Incorporated |

**Presenter:** Thomas Stockhammer (Qualcomm)

**Discussion:**

* none

**Decision:**

* Agreed as the baseline for future work

**S4-200763** is **agreed and will be added to TR26.955v0.2.0 in S4-200891.**

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| --- | --- | --- |
| [S4-200891](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200891.zip) | TR26.955v0.2.0 | Qualcomm Incorporated |

**E-mail Discussion:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Gilles Teniou | ORANGE | 2020-05-29 (Fri)  11:16:26 DE | [10.6, FS\_5GVideo, 891, 2JUN 1200 CEST] Draft TR 26.955 v0.2.0 | Dear VIDEO SWG colleagues, I declare the email agreement process started on the Tdoc indicated in the subject line. The document is available here (in the Inbox): S4-200891.zip [FILE](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Inbox/S4-200891.zip) (link will be broken when moved to the [FILE](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs) Docs [FILE](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs) folder<.. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005E&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=6878) |

**[add any additional e-mails]**

**S4-200891 [is agreed].**

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| --- | --- | --- |
| [S4-200764](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200764.zip) | pCR26.955: Messaging and Social Sharing Scenario | Qualcomm Incorporated |

**Presenter:** Thomas Stockhammer (Qualcomm)

**Discussion:**

* Richard: BBC supports the scenario
* Richard: On the permitted distribution, it probably better be said as encoding format
  + Thomas: agree

**Decision:**

* Agreed with the changes

**S4-200764** is **agreed. The content will be added to TR26.955v0.2.0.**

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| --- | --- | --- |
| [S4-200765](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200765.zip) | pCR26.955: Gaming and Screen Content Scenario | Qualcomm Incorporated |

**Presenter:** Thomas Stockhammer (Qualcomm)

**Discussion:**

* No discussion

**Decision:**

* Agreed

**S4-200765** is **agreed. The content will be added to TR26.955v0.2.0.**

|  |  |  |
| --- | --- | --- |
| [S4-200766](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200766.zip) | pCR26.955: Consolidated Evaluation Conditions | Qualcomm Incorporated |

**Presenter:** Thomas Stockhammer (Qualcomm)

**Discussion:**

* Gilles: How could this be used
  + Thomas: it would be used in the below scenario
* Rajesh: About GOP size, you could have a GOP size of 4. YOu could use B-frames from the past. We could add this.
  + Gilles: not GOP size matters, but the latency modes
  + Thomas: Agree
  + Kiho: For low-delay, the GOP structure is 4 or 8.
* Gilles: Should we do the HM?
  + Thomas: Sure, looking at the parameter sets will help us to progress the work
* Thomas: Does anyone have relevant documentation for these parameters?
  + Thibaud: JCT-VC will have this. We are happy to contribute to this.
  + Gilles: Fix as many parameters as possible, and only change those to service parameters.
  + Thomas: agree
  + Thibaud: We should also document the settings for other cases.
* Thomas: Two steps are needed
  + Reference software
  + Parameter settings
* Gilles: Document in the Annex
  + Thomas: OK

**Decision:**

* Revision based on the discussion.
* Interested parties: Thibaud, Rajan, Kiho, Sejin, Dmytro

**S4-200766** is **revised to S4-200892.**

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| --- | --- | --- |
| [S4-200892](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200892.zip) | Annex on performance evaluation FS\_5GVideo | ATEME |

**Presenter:** Thibaud Biatek (ATEME)

**Discussion:**

* Two documents included
* Thomas: on the first one, thank you. Good starting, but I am not in the position to agree as is, there are details to be covered. For example TR26.902 includes delivery. We need to very carefully define the details.
  + Gilles: Agrees as starting, note document
  + Thibaud: ok with me
* Thomas: on the LS, thank you, it summarizes the details and issue. We would like to wait on this before sending it in order to identify if the receiver is able to process this and how. This will likely happen over the next few weeks, maybe even earlier.
* Gilles: We need to check who the receiver is (ITU-T/MPEG)
* Thomas: can we add the power to send LS to MPEG/ITU-T
  + Agreed

**Decision:**

* Point 1: Agreed as a starting point, noted otherwise
* Point 2: Agreed to be the issue, not send anything yet
* Agree on new time plan in **S4-200896**.

**S4-200892** is **noted.**

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| [S4-200767](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200767.zip) | [5G Video] First thoughts on evaluation metrics | Qualcomm Incorporated |

**Presenter:** Thomas Stockhammer (Qualcomm)

**Discussion:**

* Igor: Would be good to avoid that people with most diverse metrics. Would be good to have restricted set of metrics. Have at least a common basis.
* Igor: specifically on the mentioned metrics
  + VMAF: at the last JVET meeting it was documented that you cheat with this method
  + SSIM: There are multiple variants. Which one are you referring
  + PSNR: We need to go into the details on how to compute this. Different weighting factors may be applied. Also rate-distortion BD-PSNR can be used.
* Thomas: I basically agree on all of this, it is a starting point. Maybe someone wants to even do subjective tests
  + Igor: Yes, there are also different ways for subjecting tests
  + Gilles: If subjective is done, this also needs be document. For all cases reproducibility needs to be ensured.
* Rajan: We should at least consider to at least a few metrics as mandatory.
* Lukasz: Do we want to use different metrics for HDR metrics? A single metric would than be problematic.
  + Gilles: Should we have another metrics for HDR?
  + Lukasz: JVET has a detailed information on how to do documentation. Also bitrate needs to be considered.
  + Gilles: can we create a group for this purpose
  + Thomas: We can create an Annex for this purpose
* Thomas: a group is good, but needs to be greater than 0.
  + Igor: we participate
  + Thibaud: can start this.
* Thomas: proposes to have a github

**Decision:**

* Very good discussion. Thibaud will lead activity on this matter.
* Create placeholder in Annex of TR26.955.

**S4-200767** is **agreed with the above comments.**

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| [S4-200846](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200846.zip) | 4K-TV Scenario for FS\_5GVideo | ATEME, InterDigital, Orange, Qualcomm |

**Presenter:** Thibaud Biatek (ATEME)

**Discussion:**

* Richard: BBC is broadly supportive to this, please add our name.
* Gilles: Are the interop considerations identical to FullHD?
  + Thibaud: Yes
  + Thomas: I can do this as part of the editing

**Decision:**

* Agreed with the support of BBC

**S4-200846** is **agreed. The content will be added to TR26.955v0.2.0.**

## 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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| --- | --- | --- |
| [S4-200768](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200768.zip) | Proposed Updates to Work Plan for FS\_XRTraffic | Qualcomm Incorporated |

**Presenter:** Thomas Stockhammer (Qualcomm)

**Discussion:**

* Thomas: mentions the possible online workshop for September.

**Decision:**

* No comments

**S4-200768** is **agreed.**

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| --- | --- | --- |
| [S4-200769](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200769.zip) | Proposed Skeleton Draft CR for XR Traffic | Qualcomm Incorporated |

**E-mail Discussion:**

|  |  |  |  |  |  |
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| Gilles Teniou | ORANGE | 2020-05-25 (Mon)  23:27:02 DE | [10.7, FS\_XRTraffic, 769 & 770, 27MAY 0600 CEST] 26.925 draft CR & Permanent document | Dear VIDEO SWG colleagues, I declare the email agreement process started on the Tdocs indicated in the subject line. The documents are available here: \* S4-200769.zip [FILE](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200769.zip) \* S4-200770.zip [FILE](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200770.zip) Note from the chair: \* Those 2 documents implement the agreements from our last VIDEO SWG AHG telephone conference \* 769 is .. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=5632) |
| Sejin Oh |  | 2020-05-26 (Tue)  08:49:37 DE | [10.7, FS\_XRTraffic, 769 & 770, 27MAY 0600 CEST] 26.925 draft CR & Permanent document | For S4-200769, I have one comment as below. In the summary of change at the first page, the proponent summarized that it intends to add information for the following services ; \* Viewport independent 6DoF Streaming \* Viewport dependent 6DoF Streaming \* Simple Single Buffer split rendering for online cloud gaming \* Cloud gaming \* MTSI-based XR conversational services.. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=7717) |
| Thomas Stockhammer | QUALCOMM | 2020-05-26 (Tue)  09:13:55 DE | [10.7, FS\_XRTraffic, 769 & 770, 27MAY 0600 CEST] 26.925 draft CR & Permanent document | Sejin, Thanks for pointing to this issue. I am aware of this inconsistency, but there is none, I believe. There is a bit of history in this that needs to be explained. We agreed on the study during SA4#107 and I used the term: "Simple Single Buffer split rendering for online cloud gaming" from the draft TR26.928 back then. However, during the cause of the follow-up telcos, we changed this term to "raster-based .. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=10036) |
| Sejin Oh |  | 2020-05-26 (Tue)  16:06:08 DE | [10.7, FS\_XRTraffic, 769 & 770, 27MAY 0600 CEST] 26.925 draft CR & Permanent document | Thomas, Thanks for clarification. If each subclause of clause 5.6 and clause 9.2 is intended to specify traffic characteristics for XR services of clause 6 in TR 26.928, the addition of description, e.g., which subclause is mapped to a certain one in clause 6 of TR 26.928, is really helpful to understand this. For example, which one in clause 6 of TR 26.928 is mapped to cloud gaming in this text?.. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=11907) |
| Thomas Stockhammer | QUALCOMM | 2020-05-26 (Tue)  16:23:44 DE | [10.7, FS\_XRTraffic, 769 & 770, 27MAY 0600 CEST] 26.925 draft CR & Permanent document | Sejin, I am not sure I understand your request. Why do you not just propose an update and upload it to the draft folder. This would be very helpful. Thanks Thomas.. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=12571) |
| Sejin Oh |  | 2020-05-26 (Tue)  18:04:19 DE | [10.7, FS\_XRTraffic, 769 & 770, 27MAY 0600 CEST] 26.925 draft CR & Permanent document | Thomas, The attached includes my suggested update on S4-200769. I simply added one table to describe which XR architecture in TR 26.928 is used or associated. I tried to upload the attached to DRAFT folder, Unfortunately, I failed. I don't know reason. So, I just sent this to this reflector. Best regards, Sejin ------ Dr. Sejin Oh || Standard Manager || Communication & Media Standard Lab., LG Electronics Inc. || Mobile : +82-10-5054-4161 LG Electronics Inc., 19, Yangjae-daero .. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=13336) |
| Gilles Teniou | ORANGE | 2020-05-27 (Wed)  07:42:17 DE | [10.7, FS\_XRTraffic, 769 & 770, 27MAY 0600 CEST] 26.925 draft CR & Permanent document | Dear all, Given the discussions only focused on 769, I only declare S4-200770, the permanent document, as agreed (as the basis for further work) Best regards, Gilles De : ".. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=29194) |
| Gilles Teniou | ORANGE | 2020-05-27 (Wed)  08:01:06 DE | [10.7, FS\_XRTraffic, 769 & 770, 27MAY 0600 CEST] 26.925 draft CR & Permanent document | Dear all, Given the discussions on the draft CR on 26.925, S4-200769 is revised into S4-200893. Best regards, Gilles De : ".. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=31160) |
| Thomas Stockhammer | QUALCOMM | 2020-05-27 (Wed)  08:19:12 DE | [10.7, FS\_XRTraffic, 769 & 770, 27MAY 0600 CEST] 26.925 draft CR & Permanent document | Which is available in the Inbox [FILE](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Inbox/S4-200893.zip..) | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=33322) |

**S4-200769** is **revised to S4-200893.**

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| [S4-200893](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200893.zip) | Proposed Skeleton Draft CR for XR Traffic | Qualcomm Incorporated |

**Presenter:** Thomas Stockhammer (Qualcomm)

**Discussion:**

* Sejin: Not added to cover page
  + Thomas: correct - more aspects on cover page is done
* Gilles: Is the idea to integrate everything into a single CR?
  + Thomas: Yes and no. This first one is needed for the ran work
* Lei: Why is the reason for change like this
  + Thomas: this is is from study item description. Please fix
  + Gilles: Updates Rel-15 and beyond

**Decision:**

* Agreed with the above changes. That will added the later.

**S4-200893** is **agreed.**

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| [S4-200770](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200770.zip) | Proposed Updates to Permanent Document | Qualcomm Incorporated |

**E-mail Discussion:**

* See S4-200769

**Decision:**

* agreed

**S4-200770** is **agreed.**

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| [S4-200771](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200771.zip) | [FS\_XRTraffic] System Design Assumptions for Split Rendering | Qualcomm Incorporated |

**Presenter:** Thomas Stockhammer (Qualcomm)

**Discussion:**

* Ryan: Online Gaming and Spectator Mode?
  + Thomas: Not spectator mode, but online gaming

**Decision:**

* No other discussion

**S4-200771** is **agreed. Will be added to the Permanent Document in S4-200895.**

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| [S4-200895](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200895.zip) | FS\_XRTraffic: Permanent Document v0.2.0 | Qualcomm Incorporated |

**Presenter:** Thomas Stockhammer (Qualcomm)

**Discussion:**

* None

**Decision:**

* We will send to closing plenary

**S4-200895** is **agreed and will be presented to SA4 plenary.**

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| [S4-200772](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200772.zip) | [FS\_XRTraffic] Considerations for Traffic Modelling for Split Rendering | Qualcomm Incorporated |

**Presenter:** Thomas Stockhammer (Qualcomm)

**Discussion:**

* No discussion

**Decision:**

* No other comments

**S4-200772** is **agreed. Will be added to the Permanent Document in S4-200895.**

## 10.9 New Work / New Work Items and Study Items

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| [S4-200725](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200725.zip) | New SID on 5G Glass-type AR/MR Devices | Samsung Electronics France SA |

**Presenter:** Ryan Lee (Samsung)

**Discussion:**

* Thomas: just to mention that AT&T provided their support as well.
* Joe (CMCC): There is a note that Video-see through will not be discussed. The situation is at 5G networks main devices are Video-see through.
* Igor: cannot find conversational
  + Gilles: points to many cases where communication is added
  + Jaeyeon: We believe that we need study first to identify the details
  + Mary-Luc: Not want to repeat my comments, but I want to invite 776 proponents to integrate. One study is clearly better than multiple ones
  + Sejin: Miss discussion from last meeting, but when I read this document, conversational is included. LG supports one study item. And LG wants to co-sign 725.
* Thomas: We support 725. Speaking daily with product people. The holistic approach is very much important as it addresses the complexity of the problem that we are facing. We have conversational in place, but AR devices are very much different in terms of display, power consumption, etc. If note 1 is a blocking, let’s remove it. But it was addressing the issue that the complexity comes from AR Glasses.
* Igor: is already behind this, we are not advocating having a second study. We also support 725, also going with one.
* Iraj: we want this go forward, but we want that the CMCC and Huawei changes are done, but this should minor.

**Decision:**

* 725 is basically agreed. Huawei will provide a proposed update to add some additional aspects that they do not see covered until now. Teng will provide a revised version within 1 hour.

**S4-200725** is **revised to S4-200894.**

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| [S4-200894](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200894.zip) | New SID on 5G Glass-type AR/MR Devices | Samsung Electronics France SA |

**E-mail Discussion:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Gilles Teniou | ORANGE | 2020-05-28 (Thu)  17:19:07 DE | Checkpoint on AR study item proposals - please pay attention | Dear colleagues, I’m glad to see email discussions happening on such a topic of interest of many members in SA4 and this is the reason why I did not want to interfere. However, given the latest exchanges reflecting some lack of progress, I feel I need to give a brief summary of the situation so as avoid wasting anyone’s time:.. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=55509) |
| Curcio, Igor (Nokia - FI/Tampere) | NOKIA | 2020-05-28 (Thu)  20:29:26 DE | Checkpoint on AR study item proposals - please pay attention | Dear all, I have been re-reading the text of the latest version a couple of more times. Since Nokia was commenting on increasing the weight of conversational services, I tried to edit the text a bit. However, in the end I found that the latest version of the document resulted pretty consistent with my request and I am satisfied with it. So, I decided not to propose any additions on top of Ryan’s latest version... | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=57206) |
| tengyidan | HUAWEI | 2020-05-29 (Fri)  05:57:50 DE | Checkpoint on AR study item proposals - please pay attention | Dear all, We believe that in some cases, especially the conversational scenarios, it would be beneficial to enable some AR capabilities in the network side. As we emphasized, all the bullets in 725 are describing devices and relatively general relating to network side because most media services defined in 3GPP need to consider aspects mentioned in objective 5. Our intention is to make it clearer. Furthermore, we still think that AR capabilities integrated in the network or in the devices .. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005E&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=73) |
| Bernhard Feiten |  | 2020-05-29 (Fri)  06:38:07 DE | Checkpoint on AR study item proposals - please pay attention | Dear all, Deutsche Telekom AG would like to cosign this study item described in Doc. 894 Kind regards Bernhard Feiten Deutsche Telekom AG Technology & Innovation Dr.-Ing. Bernhard Feiten Winterfeldtstr. 21, 10781 Berlin Postal address: 13499 Berlin +4930835358147 (Phone) +4930835358408 (Fax) +491715635834 (Mobile) E-Mail:.. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005E&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=829) |

**Presenter:** Ryan Lee (Samsung)

**Discussion:**

* Ralf: Interdigital would like to be added to the co-signing companies

**Decision:**

* 894 is revised. Also add Huawei and CMCC

**S4-200894** is **revised to S4-200897.**

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| [S4-200897](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200897.zip) | New SID on 5G Glass-type AR/MR Devices | Samsung Electronics France SA |

**S4-200897** is **agreed without presentation and will be sent to SA4 plenary.**

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| --- | --- | --- |
| [S4-200776](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200776.zip) | new SID on AR Conversational Services for Terminals | HUAWEI TECHNOLOGIES Co. Ltd. |

**E-mail Discussion:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Gilles Teniou | ORANGE | 2020-05-25 (Mon)  23:27:58 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for terminals - New study item proposal | Dear colleagues, I declare the email agreement process started on the Tdoc indicated in the subject line. The document is available here: S4-200776.zip [FILE](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Docs/S4-200776.zip) Note from the chair: \* Per the agreement during the SA4 opening plenary this email discussion is intended to identify: \* any overlap in the objectives between 776 and 725 \* any possibility to merge those 2 study item proposals \* any reason for .. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=6648) |
| Thomas Stockhammer | QUALCOMM | 2020-05-26 (Tue)  08:51:43 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for terminals - New study item proposal | Dear Mr. Chairman, dear video colleagues, Qualcomm is very supportive to initiate work on AR Glasses as proposed in S4-200725 (many hours of work have gone into this over the last 2 SA4 meetings, and many hours have gone into this during FS\_5GXR), and not based on this proposal. The SID in S4-200725 is a truly impressive collection to take our first considerations around XR towards the significantly more challenging AR domain for which form factors, in particular .. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=8346) |
| Hakju Ryan Lee |  | 2020-05-26 (Tue)  08:54:58 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for terminals - New study item proposal | Dear colleagues, Let me outline the comments made in the opening plenary. - Timing dependency b/w 725 and 776: Many objectives in 776 are too early to discuss at this stage. It would not make sense to discuss IMS and SDP extension without understanding the details of media processing functions such as the required attributes of media exchange formats and their QoS, which will be identified as the outcomes of 725 SID. Therefore, 776 can go neither in parallel nor .. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=9256) |
| champelmary-luc |  | 2020-05-26 (Tue)  22:09:53 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for terminals - New study item proposal | Dear video colleagues, As an early adopter of S4-200725, Xiaomi would like to insist on the significant amount of work spent on S4-200725 so we can finally reach consensus. This took time and efforts from many of us to get there. Xiaomi is very supportive of the plan presented in S4-200725 and we also believe the timeline for this work is realistic and will help our industry in appropriate time... | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=16824) |
| tengyidan | HUAWEI | 2020-05-27 (Wed)  04:48:23 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for terminals - New study item proposal | Dear colleagues, Thank you for your comments. However, we have different understandings: - SIDs S4-200776 and S4-200725 are all based on the outcome of feasibility study on FS\_5GXR. We don’t understand why it is said that 776 is too early to start at this stage. As studied in TS 26.928, AR conversational scenario is an extension to the current MTSI network, using IMS for session signaling, and 776 is mainly working on investigating extensions related to that... | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=20163) |
| Kyunghun Jung | SAMSUNG | 2020-05-27 (Wed)  06:02:24 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for terminals - New study item proposal | - | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=21930) |
| Thomas Stockhammer | QUALCOMM | 2020-05-27 (Wed)  07:00:13 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for terminals - New study item proposal | All, I STRONGLY URGE to NOT MODIFY the agreed in principle and co-signed STUDY ITEM in S4-200725. We DO not accept these changes. Qualcomm remains very concerned about these practices that significant work done by many companies over several meetings is modified by a single company in order to create space for their new proposal... | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=22241) |
| tengyidan | HUAWEI | 2020-05-27 (Wed)  07:07:36 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for terminals - New study item proposal | Dear Kyunghun, As we already explained, S4-200776 is aiming at studying the possibility to enable IMS network to support AR media capabilities, i.e. by extending media part of IMS architecture. We believe that media related content should be discussed in SA4. AR Conversatoinal is explained in TR 26.928, clause 6.2.8, I quoted ” In order to support XR conversational services (in 5G), extensions are needed in the signalling to enable VR/AR specific attributes, and the .. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=22893) |
| Thomas Stockhammer | QUALCOMM | 2020-05-27 (Wed)  07:08:13 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for terminals - New study item proposal | Dear all, ITT4RT is an ongoing Rel-17 work item in MTSI and anyone is invited to contribute. This work will run until the end of Re-17. The TR26.928 conclusion was always written in a way that the work on basic AR/XR services are already covered in ITT4RT (which is a Rel-17 work)... | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=23820) |
| Hakju Ryan Lee |  | 2020-05-27 (Wed)  07:17:17 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for terminals - New study item proposal | Dear colleagues, I fully agree with Thomas. SID 725 is the agreed document with many other companies by having lots of discussion and rewriting so many times how best all the companies concerns and interests can be successfully addressed. It doesn’t make sense at all to submit the revision of the other companies without permission from all the original authors. It must NOT be handled in the official meeting. (at least, this is late submission).. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=24456) |
| HU, JAMES |  | 2020-05-27 (Wed)  07:30:50 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for terminals - New study item proposal | Hi All, We support the study item as in S4-200725 and would like to see it to proceed. BR, James.. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=25977) |
| Kyunghun Jung | SAMSUNG | 2020-05-27 (Wed)  07:39:29 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for terminals - New study item proposal | - | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=28883) |
| tengyidan | HUAWEI | 2020-05-27 (Wed)  08:01:44 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for terminals - New study item proposal | Dear Kyunghun, The original term in 26.928 is “ XR Conversatinal “, eXtended Reality (XR) is an umbrella term for different types of realities including AR. The use cases considered in 776 is mainly focusing on conversational related e.g., 7/8/11/12/13/17/19. Hope this will explain your confusion. Best regards, Teng.. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=32376) |
| Kyunghun Jung | SAMSUNG | 2020-05-27 (Wed)  08:27:20 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for terminals - New study item proposal | - | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=34191) |
| tengyidan | HUAWEI | 2020-05-27 (Wed)  10:43:28 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for terminals - New study item proposal | Dear chairman, dear all video colleagues, As discussed at the 27th meeting, the following link is the draft S4-200894, revision of document S4-200725, please check. [FILE](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_109-e/Inbox/Drafts/Video/S4-200894.zip) Best regards, Teng.. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=34502) |
| Thomas Stockhammer | QUALCOMM | 2020-05-27 (Wed)  11:10:34 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for terminals - New study item proposal | Dear Teng, Thanks for the information. In the current form, Qualcomm cannot agree to the study item for the following reasons: 1. The co-signing companies are not what was discussed in the Video SWG. AT&T mentioned that they want to support 725. LGE is wrongly documented. 2. In the justification, the text under the bullet points is a verbatim copy from TR26.928 and it is confusing to add any new text. We disagree to the added .. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=35363) |
| Thomas Stockhammer | QUALCOMM | 2020-05-27 (Wed)  11:15:27 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for terminals - New study item proposal | Just to clarify, LGE needs to be added with the correct registered company. LGE is not the correct name. Thomas.. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=36234) |
| 이학주 |  | 2020-05-27 (Wed)  13:07:10 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for termina | - | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=38057) |
| champelmary-luc |  | 2020-05-28 (Thu)  01:10:30 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for terminals - New study item proposal | Dear Teng, Mandates of S4-200894, revision of S4-200725 were made very clear during our call: \* Update list of supporting companies. \* Clarify objectives with regards to support of AR conversational use case. The proposed changes are going way beyond what has been agreed and include major changes that have not even been discussed during the call. As such, Xiaomi cannot agree with this revision... | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=45560) |
| Hakju Ryan Lee |  | 2020-05-28 (Thu)  06:49:46 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for terminals - New study item proposal | Dear colleagues in Video SWG, After the review of the submission from Teng and email discussion, Samsung concluded we can agree only changes what Thomas suggested. \* The text in Justification is wholly referred from TR26.928, so we cannot accept any change on it \* We are fine to remove Note 1, but as Xiaomi raised a concern on removal, I suggest the compromised text;.. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=47266) |
| Curcio, Igor (Nokia - FI/Tampere) | NOKIA | 2020-05-28 (Thu)  07:23:43 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for terminals - New study item proposal | Dear Video SWG Colleagues, the comments Nokia gave during the call were aimed at sharpening the text such that the conversational aspects would increase the weight in the SID but no more than that. In this sense the updated version by Teng includes other aspects (such as IMS) which go beyond the discussions in the call and are not agreeable. Summarizing again and using Mary-Luc’s words in his previous email, Nokia would be okay only to.. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=47926) |
| Thomas Stockhammer | QUALCOMM | 2020-05-28 (Thu)  10:47:39 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for terminals - New study item proposal | Ryan, Thank you for your leadership guiding us through this complex procedures. We can accept your changes and we can also accept any formulation around Note 1 that excludes/includes/sub-prioritizes Video-See Through devices. At the end we need to realize that only design form factors (Gucci, Prada and Ray-Ban designs) will get user acceptance, so we need to make sure that optical see through is of importance... | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=49598) |
| Thomas Stockhammer | QUALCOMM | 2020-05-28 (Thu)  11:16:41 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for terminals - New study item proposal | All, After consulting offline may I suggest the following wording For the Note 1: n NOTE 1: Device type of XR5G-A3 (video see-through HMD) are not the primary scope of this study, but are not excluded per se. Thanks Thomas.. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=50335) |
| tengyidan | HUAWEI | 2020-05-28 (Thu)  13:59:43 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for terminals - New study item proposal | Dear colleagues in Video SWG, As we have agreed in the Video session, the content of 776 cannot be fully covered by the current version of 725. The key objective of 776 is to build XR capabilities based on the current MTSI network to support the AR conversational services. We propose to make it clear that this can be addressed in the SID. Please see attached revision of the SID based on the version sent by Ryan. [FILE](https://www.3gpp.../) | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=52103) |
| Thomas Stockhammer | QUALCOMM | 2020-05-28 (Thu)  14:43:54 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for terminals - New study item proposal | Dear Teng, I have the feeling we are going in circles on issue 3 and 5 below. I believe 894 in the form provided by Ryan has broad support and has been refined over the last few meetings (also inspired by some small aspects from 725, but surely much more by many comments from Xiaomi, Qualcomm, AT&T, Ericsson, Nokia and other co-signers). None of these extensions and modifications never ever considered that we need a rapporteur from .. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=52912) |
| Thomas Stockhammer | QUALCOMM | 2020-05-28 (Thu)  14:53:38 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for terminals - New study item proposal | Correction.. | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=53747) |
| champelmary-luc |  | 2020-05-28 (Thu)  14:58:59 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for terminals - New study item proposal | Dear video colleagues, Xiaomi also concurs with what Qualcomm just wrote and agrees to move forward with 894 as provided by Ryan with a small caveat regarding Note 1. As a consensual solution, we would prefer and agree with the rewriting of Note 1 as proposed by Thomas: n NOTE 1: Device type of XR5G-A3 (video see-through HMD) are not the primary scope of this study, but are not excluded per se... | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=54541) |
| 이학주 |  | 2020-05-28 (Thu)  15:05:38 DE | [10.8, New Study, 776, 27MAY 0600 CEST] AR conversational services for termina | - | [Original Email](https://list.etsi.org/scripts/wa.exe?A2=ind2005D&L=3GPP_TSG_SA_WG4_VIDEO&O=D&P=55252) |

**Presenter:** Yidan Teng (Huawei)

**Discussion:**

* Teng explains the difference, repeating the e-mail discussion.
* Ryan: Teng has mentioned why 776 is different to 725, but this is not the case
  + 1) No difference on use cases
  + 2) Transport Protocol is described in objective 4
  + 3) Device type of AR glass limited, but not the case
* Teng: We are willing to co-sign 725
* Thomas: Let’s agree 725 and move on
  + Teng: we want some changes in 725
  + Igor: the new work item covers conversational AR, 725 may not.
  + Gilles: 725 is clearly focus on conversational services
  + Igor: let’s cover this
  + Gilles: Does it cover ITT4RT?
  + Teng: No
  + Igor: ITT4RT change to rapporteur, quite limited, only one use case, also study item.

**Decision:**

* Not sufficient support, many concerns. Will be noted.

**S4-200776** is **noted.**

## 10.10 Liaisons and Liaison Responses

**See under 10.3.**

## 10.11 Work Plan

Based on the above agreements, the following telcos are scheduled until SA4#110-e.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 3GPP SA4 Video SWG Telco (June 9, 2020, 15:00 – 17:00 CEST, Host Qualcomm) | * Agree on CRs to 3GPP SA4 specifications for Rel-16 in order to remove H.263 and MPEG-4 visual from relevant specifications. This in particular includes   + TS 26.114   + TS 26.140   + TS 26.234   + TS 26.244   + TS 26.346   Use the draft CRs in S4-200853, S4-200854, S4-200855, S4-200856 and S4-200857 as basis for the work.   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | S4-200853 | Removing H.263 | draftCR | Rel-16 | 26.140 | 15.0.0 | TEI16 | | S4-200854 | Removing H.263 | draftCR | Rel-16 | 26.114 | 16.5.2 | TEI16 | | S4-200855 | Removing H.263 | draftCR | Rel-16 | 26.244 | 15.0.0 | TEI16 | | S4-200856 | Removing H.263 | draftCR | Rel-16 | 26.346 | 16.4.1 | TEI16 | | S4-200857 | Removing H.263 | draftCR | Rel-16 | 26.234 | 16.0.0 | TEI16 |  Submission deadline June 5, 15:00 CEST. |
| 3GPP SA4 Video SWG Telco (June 23, 2020, 15:00 – 17:00 CEST, Host Qualcomm) | FS\_5GVideoFor each scenario, progress and documentRelevant and exemplary test conditions and material for such scenarios, including test sequences.Performance metrics for such scenarios with focus on objective performance metrics.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.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).Document the agreements in TR 26.955Communicate with ITU-T SG6 and/or ISO/IEC SC29 WG11 (MPEG) on performance metrics for video codec characterizations, if necessaryFS\_XRTrafficFor each relevant XR Service, progress and documentSystem AssumptionsSimulation MethodologyTraffic CharacteristicsDocument the agreements in the Permanent DocumentSubmission deadline June 22, 15:00 CEST. |
| 3GPP SA4 Video SWG Telco (July 7, 2020, 15:00 – 17:00 CEST, Host Qualcomm) | FS\_5GVideoFor each scenario, progress and documentRelevant and exemplary test conditions and material for such scenarios, including test sequences.Performance metrics for such scenarios with focus on objective performance metrics.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.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).Document the agreements in TR 26.955  * Communicate with ITU-T SG6 and/or ISO/IEC SC29 WG11 (MPEG) on performance metrics for video codec characterizations, if necessary  FS\_XRTrafficFor each relevant XR Service, progress and documentSystem AssumptionsSimulation MethodologyTraffic CharacteristicsDocument the agreements in the Permanent DocumentSubmission deadline July 6, 15:00 CEST. |
| 3GPP SA4 Video SWG Telco (July 21, 2020, 15:00 – 17:00 CEST, Host Qualcomm) | FS\_5GVideoFor each scenario, progress and documentRelevant and exemplary test conditions and material for such scenarios, including test sequences.Performance metrics for such scenarios with focus on objective performance metrics.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.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).Document the agreements in TR 26.955Communicate with ITU-T SG6 and/or ISO/IEC SC29 WG11 (MPEG) on performance metrics for video codec characterizations, if necessaryFS\_XRTrafficFor each relevant XR Service, progress and documentSystem AssumptionsSimulation MethodologyTraffic CharacteristicsDocument the agreements in the Permanent DocumentSubmission deadline July 20, 15:00 CEST. |
| 3GPP SA4 Video SWG Telco (August 4, 2020, 15:00 – 17:00 CEST, Host Qualcomm) | FS\_5GVideoFor each scenario, agree and documentRelevant and exemplary test conditions and material for such scenarios, including test sequences.Performance metrics for such scenarios with focus on objective performance metrics.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.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).Document the agreements in TR 26.955Communicate with ITU-T SG6 and/or ISO/IEC SC29 WG11 (MPEG) on performance metrics for video codec characterizations, if necessaryFS\_XRTrafficFor each relevant XR Service, progress and documentSystem AssumptionsSimulation MethodologyTraffic CharacteristicsDocument the agreements in the Permanent DocumentSubmission deadline August 3, 15:00 CEST. |

## 10.12 Any Other Business

The chairman provides a brief summary of the main outcome of the week.

Here is a quick summary of the outcomes and what to expect for the closing plenary next week:

* ***Incoming LS***
  + Both **736** and **804** were noted at the VIDEO SWG level
* ***Maintenance***
  + On the removal of H.263 from 3GPP specs
    - We will have a telephone conference on June 9th 2020 3-5pm CEST /submission deadline June 5th 23:59 CEST / Host Qualcomm Incorporated
    - I will add it to the VIDEO SWG report under *Maintenance*.
    - Please consider **853**, **854**, **855**, **856** and **857** that were **Not treated** as suggestions on how to implement the removal.
* ***FS\_5GVideo***
  + **896** workplan with email agreement pending will go to the closing plenary for information
    - *Note that the telcos in 896 until SA4#110e will focus on both FS\_5GVideo and FS\_XRTraffic*
  + Draft TR 26.955 v0.2.0 under tdoc **891**, implementing the agreements of the week, with email agreement pending will go to the closing plenary for agreement as the basis for further work
* ***FS\_XRTraffic***
  + The agreed time plan under **768** will go to the closing plenary for information
    - *Note that the telcos in 768 until SA4#110e will focus on both FS\_5GVideo and FS\_XRTraffic*
  + The agreed permanent document under **895** will go the closing plenary for agreement as the basis for further work
* ***New study Item proposal***
  + The FS\_5GSTAR study item proposal agreed in **897** agreed at the VIDEO SWG level will go to the closing plenary for agreement at the WG level.

The report will be made available in **S4-200898.**

## 10.13 Close of the session

The chairman thanked the participants. The participants thanked the chairman. Igor thanked the chairman for the summary. Everyone thanked everyone. Peaceful times when we do not meet f2f. Many delegates announced to go to sleep now, independently of the time zone.

The online session was closed on May 29, 2020 at 09:05 (CEST).

E-mail approval for documents concluded on June 12, 2020 12:00 (CEST)

## 10.14 Participants

To be updated based on Jayeeta

|  |  |  |  |
| --- | --- | --- | --- |
| **NAME** |  | **COMPANY** | **Attended** |
| Stockhammer | **Thomas** | **Qualcomm Incorporated** | Yes |
| Teniou | **Gilles** | **Orange** | Yes |
| Curcio | **Igor** | **Nokia** | Yes |
| Oh | **Sejin** | **LG Electronics Inc.** | Yes |
| Lee | **Brian** | **Dolby Laboratories** | Yes |
| Singh | **Gurdeep** | **Fraunhofer HHI** | Yes |
| Thienot | **Cedric** | **Expway** | Yes |
| Tan | **Peng** | **TELUS** | Yes |
| Champel | **Mary-Luc** | **XiaoMi** | Yes |
| Yee Sin | **Chan** | **Facebook** | Yes |
| Iraj | **Sodagar** | **Tencent** | Yes |
| Richard | **Bradbury** | **BBC R&D** | Yes |
| Fourdeux | **Henri** | **InterDigital** | Yes |
| Choi | **Kiho** | **Samsung Electronics** | Yes |
| Michel | **Kerdranvat** | **InterDigital** | Yes |
| Ahmed | **Hamza** | **InterDigital** | Yes |
| Bo | **Burman** | **Ericsson** | Yes |
| Lee | **Ryan** | **Samsung Electronics** | Yes |
| Hu | **James** | **AT&T** | Yes |
| Isberg | **Peter** | **Sony** | Yes |