Video SWG Minutes SA4#129-e

## 9.1 Opening of the session, registration of documents

### 9.1.1 Opening of the session

Mr. Gilles Teniou (Tencent, Chairman of Video SWG) opens the Video SWG on August 20, 2024 at 15:00 CEST.

E-mail discussion started already on Mon, 19 Aug 2024 07:05:36 +0000

| Start of SA4#129-e meeting - VIDEO SWG | Teniou Gilles | Mon, 19 Aug 2024 07:05:36 +0000 |
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| Start of SA4#129-e meeting - VIDEO SWG | Thomas Stockhammer | Mon, 19 Aug 2024 08:24:11 +0000 |

Sessions and scribes are presented in the following:

| **session** | **Date** | **CEST** | **PDT** | **KST** | **Scribe #1** | **Scribe #2** | **Scribe #3** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Slot 1 (90min)****FS\_AI4Media** | 20th Aug. | 3pm4:30pm | 6am7:30am | 10pm11:30pm | Gaëlle Martin-Cocher | Eric Yip | ? |
| **Slot 2 (90min)****FS\_Beyond2D - VOPS** | 21st Aug. | 3pm4:30pm | 6am7:30am | 10pm11:30pm | Thomas Stockhammer | Emmanuel Thomas | Bart Kroon |
| **Slot 3 (90min)****FS\_AVATAR** | 21st Aug. | 4:30pm6pm | 7:30am9am | 11:30pm1am (+1) | Emmanuel Thomas | ? | ? |
| **Slot 4 (90min)****Washup session** | 22nd Aug. | 3pm4:30pm | 6am7:30am | 10pm11:30pm | Thomas Stockhammer | Bart Kroon | Jiayi Xu |
| **Slot 5 (90min)****FS\_ARSpatial, FS\_FGS, Washup** | 22nd Aug. | 4:30pm6pm | 7:30am9am | 11:30pm1am (+1) | Gaëlle Martin-Cocher | ? | ? |

| VIDEO SWG sessions - Call for minute takers | Teniou Gilles | Mon, 19 Aug 2024 10:57:04 +0000 |
| --- | --- | --- |
| VIDEO SWG sessions - Call for minute takers | Emmanuel Thomas | Mon, 19 Aug 2024 13:03:51 +0000 |
| VIDEO SWG sessions - Call for minute takers | Kroon, Bart | Mon, 19 Aug 2024 13:14:47 +0000 |
| VIDEO SWG sessions - Call for minute takers | Xu Jiayi | Mon, 19 Aug 2024 21:23:59 +0800 |
| VIDEO SWG sessions - Call for minute takers | Gaëlle Martin-Cocher | Mon, 19 Aug 2024 18:11:19 +0000 |
| VIDEO SWG sessions - Call for minute takers | Teniou Gilles | Mon, 19 Aug 2024 19:58:19 +0000 |
| [VIDEO SWG sessions - Call for minute takers](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;4b2736c7.2408C&S=) | Thomas Stockhammer | Tue, 20 Aug 2024 11:55:48 +0000 |

The minutes are shared [Video SWG Minutes SA4#129-e](https://docs.google.com/document/d/1smc_R_l3RjdQ6Jk2A5t7xcjpDmMBkZ092ZxhYyKDs-4/edit?usp=sharing).

Attendees are listed [here](#dpilyxvwa2oq).

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

* <https://list.etsi.org/scripts/wa.exe?A1=ind2408C&L=3GPP_TSG_SA_WG4_VIDEO>
* <https://list.etsi.org/scripts/wa.exe?A1=ind2408D&L=3GPP_TSG_SA_WG4_VIDEO>
* In total 289 e-mails were exchanged and they clustered document can be found here: https://www.3gpp.org/ftp/tsg\_sa/WG4\_CODEC/TSGS4\_129-e/Inbox/Drafts/Video/e-mail-video.xlsx

**SA4 Schedule: see** [**S4-241635**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241635.zip)

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The agenda and the registration of documents are approved.

The latest timestamp for e-mail is here: Thu, 22 Aug 2024 16:58:12 +0000

### 9.1.2 Registration of documents

| TDoc | Title | Source | Agenda item |
| --- | --- | --- | --- |
| [S4-241418](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241418.zip) | Reply LS on clarification on mobile metaverse services | SA WG1 | 9.3 |
| [S4-241423](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241423.zip) | LS to request clarification on mobile metaverse services | SA WG3 | 9.3 |
| [S4-241424](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241424.zip) | Reply LS on request clarification on mobile metaverse services | SA WG6 | 9.3 |
| [S4-241461](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241461.zip) | Liaison statement from SC 29/WG 3 to 3GPP SA 4 on MV- HEVC Integration and codec string [SC 29/WG 3 N 1334] | ISO/IEC JTC 1/SC 29/WG 03 | 9.3 |
| [S4-241462](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241462.zip) | Liaison statement from SC 29/WG 3 to 3GPP SA 4 on Avatar Representation Formats [SC 29/WG 3 N 1337] | ISO/IEC JTC 1/SC 29/WG 03 | 9.3 |
| [S4-241463](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241463.zip) | Liaison statement from SC 29/WG 4 to 3GPP SA 4 on Feature coding for machines [SC 29/WG 4 N 529] | ISO/IEC JTC 1/SC 29/WG 04 | 9.3 |
| [S4-241478](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241478.zip) | [VOPS] Completion of existing Capabilities | Qualcomm Incorporated, Tencent | 9.5 |
| [S4-241480](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241480.zip) | [VOPS] System Operation Points | Qualcomm Germany | 9.5 |
| [S4-241525](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241525.zip) | [VOPS] Updates on codec string encoding for L-HEVC | Apple Inc. | 9.5 |
| [S4-241527](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241527.zip) | [VOPS] Updates for MV-HEVC | Apple Inc., Qualcomm Incorporated | 9.5 |
| [S4-241528](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241528.zip) | [VOPS] Work Plan | Apple Inc. | 9.5 |
| [S4-241625](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241625.zip) | [VOPS] On adding MV-HEVC capabilities for messaging | Apple Inc. | 9.5 |
| [S4-241440](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241440.zip) | [FS\_AI4Media] pCR on real-time communication scenarios | China Mobile Com. Corporation,Huawei | 9.6 |
| [S4-241508](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241508.zip) | [FS\_AI4Media] pCR on IMS mapping | HUAWEI TECHNOLOGIES Co. Ltd. | 9.6 |
| [S4-241551](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241551.zip) | [FS\_AI4Media] pCR on conclusions for split operations | InterDigital Finland Oy | 9.6 |
| [S4-241552](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241552.zip) | [FS\_AI4Media] pCR on intermediate data compression editor note | InterDigital Finland Oy | 9.6 |
| [S4-241553](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241553.zip) | [FS\_AI4Media] pCR on update metadata for split operations | InterDigital Finland Oy | 9.6 |
| [S4-241554](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241554.zip) | [FS\_AI4Media] pCR on compression metadata for split operations | InterDigital Finland Oy | 9.6 |
| [S4-241555](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241555.zip) | [FS\_AI4Media] pCR on update on Split AIML procedure | InterDigital Finland Oy | 9.6 |
| [S4-241556](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241556.zip) | [FS\_AI4Media] Evaluation Permanent Document v0.6.1 | Samsung Electronics Nordic AB | 9.6 |
| [S4-241557](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241557.zip) | [FS\_AI4Media] On architecture variants for collaboration scenarios | Samsung Electronics Nordic AB | 9.6 |
| [S4-241558](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241558.zip) | [FS\_AI4Media] On collaboration scenarios and use cases | Samsung Electronics Nordic AB | 9.6 |
| [S4-241563](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241563.zip) | [FS\_AI4Media] Proposed Updated Time and Work Plan | Samsung Electronics Nordic AB | 9.6 |
| [S4-241578](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241578.zip) | [FS\_AI4Media] Mapping to IMS using DC Applications | Qualcomm France | 9.6 |
| [S4-241580](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241580.zip) | [FS\_AI4Media] Real-time Translation Test Scenario | Qualcomm France | 9.6 |
| [S4-241586](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241586.zip) | [FS\_AI4Media] pCR on NNC results for compression of model data for automatic speech recognition | Fraunhofer HHI | 9.6 |
| [S4-241597](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241597.zip) | Draft TR 26.927 Study on AIML in 5G services v0.8.1 | Tencent (Editor) | 9.6 |
| [S4-241482](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241482.zip) | [FS\_FGS] Draft TR 26.8xx | Qualcomm Germany | 9.7 |
| [S4-241483](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241483.zip) | Proposed Updates to Feasibility Study on Film Grain synthesis | Qualcomm Incorporated | 9.7 |
| [S4-241596](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241596.zip) | Proposed internal TR for the FS\_FGS study | Tencent | 9.7 |
| [S4-241489](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241489.zip) | [FS\_AVATAR] Mesh-based avatar protection | China Mobile Com. Corporation | 9.8 |
| [S4-241509](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241509.zip) | [FS\_AVATAR] pCR on IMS mapping | HUAWEI TECHNOLOGIES Co. Ltd. | 9.8 |
| [S4-241515](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241515.zip) | [FS\_AVATAR] OpenXR Tracking Framework for Avatar | Qualcomm France | 9.8 |
| [S4-241516](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241516.zip) | [FS\_AVATAR] User-avatar authentication in AR calls | Qualcomm France | 9.8 |
| [S4-241517](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241517.zip) | [FS\_AVATAR] 3DGS Avatar Representation | China Mobile Com. Corporation | 9.8 |
| [S4-241565](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241565.zip) | [FS\_Avatar]Usage of the term “Digital Asset Container (DAC)” for Avatar Storage  | Nokia | 9.8 |
| [S4-241590](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241590.zip) | [FS\_AVATAR] pCR on MPEG Avatar Representation Format | InterDigital Canada | 9.8 |
| [S4-241591](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241591.zip) | [FS\_AVATAR] pCR on Reference Architecture Mapping to Non-IMS Services | InterDigital Canada | 9.8 |
| [S4-241593](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241593.zip) | [FS\_AVATAR] On the Message Format and Carriages for Skeletal Information for Animation | QUALCOMM Europe Inc. - Italy | 9.8 |
| [S4-241481](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241481.zip) | [FS\_Beyond2D] Representation Format - Extended Stereoscopic Video | Qualcomm Germany | 9.9 |
| [S4-241488](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241488.zip) | [FS\_Beyond2D] Available Datasets, tools, softwares for Stereoscopic Video Source Sequences | China Mobile Com. Corporation | 9.9 |
| [S4-241491](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241491.zip) | [FS\_Beyond2D] TR 26.956 v0.0.4 | China Mobile Com. Corporation | 9.9 |
| [S4-241492](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241492.zip) | [FS\_Beyond2D] Permanent Document v0.0.3 | China Mobile Com. Corporation | 9.9 |
| [S4-241493](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241493.zip) | [FS\_Beyond2D] Work Plan V3.0 | China Mobile Com. Corporation | 9.9 |
| [S4-241494](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241494.zip) | [FS\_Beyond2D] Quality examples of the point cloud representation format for streaming single asset scenario | InterDigital Communications | 9.9 |
| [S4-241518](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241518.zip) | [FS\_Beyond2D] Representation Format - Neural Radiance Fields (NeRF) | China Mobile Com. Corporation | 9.9 |
| [S4-241519](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241519.zip) | [FS\_Beyond2D] Representation Format - 3D Gaussian Splatting (3DGS) | China Mobile Com. Corporation | 9.9 |
| [S4-241520](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241520.zip) | [FS\_Beyond2D] Quality aspects of stereoscopic video content | China Mobile Com. Corporation | 9.9 |
| [S4-241604](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241604.zip) | On representation format – Dynamic Point Cloud representation format | InterDigital Communications | 9.9 |
| [S4-241618](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241618.zip) | Streaming of Beyond 2D Produced VoD Content – Use Case “Volumetric Video with single asset” | InterDigital Communications | 9.9 |
| [S4-241620](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241620.zip) | On representation format – Dynamic Point Cloud representation format | InterDigital Communications | 9.9 |
| [S4-241605](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241605.zip) | [FS\_ARSpatial] Time Plan for the FS\_ARSpatial Study Item v0.0.1 | InterDigital Canada | 9.10 |
| [S4-241607](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241607.zip) | [FS\_ARSpatial] TR 26.819 Skeleton v0.0.1 | InterDigital Canada | 9.10 |
| [S4-241608](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241608.zip) | [FS\_ARSpatial] Spatial Computing Functions | InterDigital Canada | 9.10 |

## 9.2 IPR and antitrust reminder

The chairman read the antitrust and IPR clause.

*"The attention of the delegates to the meeting of this SWG was drawn to the fact that 3GPP Individual Members have the obligation under the IPR Policies of their respective Organizational Partners to inform their respective Organizational Partners of Essential IPRs they become aware of.*

*The delegates were asked to take note that they were thereby invited:*

*to investigate whether their organization or any other organization owns IPRs which were, or were likely to become Essential in respect of the work of 3GPP.*

*to notify their respective Organizational Partners of all potential IPRs, e.g., for ETSI, by means of the IPR Information Statement and the Licensing declaration forms "*

*"The attention of the delegates to the meeting was drawn to the fact that 3GPP activities were subject to all applicable antitrust and competition laws and that compliance with said laws was therefore required by any participant of the meeting, including the Chair and Vice-Chairs and were invited to seek any clarification needed with their legal counsel. The leadership would conduct the present meeting with impartiality and in the interests of 3GPP. Delegates were reminded that timely submission of work items in advance of TSG/WG/SWG meetings was important to allow for full and fair consideration of such matters."*

## 9.3 Reports and liaisons from other groups

| [S4-241418](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241418.zip) | Reply LS on clarification on mobile metaverse services | SA WG1 | Andrijana Brekalo |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [LSin, FS\_AVATAR, 1418&1423&1424, 22nd August 1200CEST] SA1/SA3/SA6 LS on mobile metaverse services | Teniou Gilles | Mon, 19 Aug 2024 16:24:01 +0000 |
| --- | --- | --- |
| [LSin, FS\_AVATAR, 1418&1423&1424, 22nd August 1200CEST] SA1/SA3/SA6 LS on mobile metaverse services | Imed Bouazizi | Tue, 20 Aug 2024 03:59:17 +0000 |
| [[LSin, FS\_AVATAR, 1418&1423&1424, 22nd August 1200CEST] SA1/SA3/SA6 LS on mobile metaverse services](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;1fcf3956.2408D&S=) | Teniou Gilles | Thu, 22 Aug 2024 12:40:33 +0000 |

**Revisions**: none

**Online Discussion**:

* Gilles presents the LS.
* Imed: Maybe we could extract some requirements from this one. I was surprised about this activity in SA6, not sure what is happening there.
* Gilles: We could also send a liaison to SA6 to make them aware of what we do and get clarification of what they do.
* Jiayi: They do avatar for metaverse and we do avatar for real-time communication, in my understanding.
* Imed: But an avatar is an avatar. You should be able to reuse this avatar for both metaverse and RTC.

**Decision**:

* Noted via e-mail.

[S4-241418](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241418.zip) is **noted**.

 avatar

| [S4-241423](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241423.zip) | LS to request clarification on mobile metaverse services | SA WG3 | Andrijana Brekalo |
| --- | --- | --- | --- |

**E-mail Discussion**: see 1418.

**Online Discussion**: none

**Decision**:

* Noted via e-mail.

[S4-241423](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241423.zip) is **noted**.

| [S4-241424](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241424.zip) | Reply LS on request clarification on mobile metaverse services | SA WG6 | Andrijana Brekalo |
| --- | --- | --- | --- |

**E-mail Discussion**: see 1418.

**Online Discussion**: none

**Decision**:

* Noted via e-mail.

[S4-241424](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241424.zip) is **noted**.

| [S4-241461](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241461.zip) | Liaison statement from SC 29/WG 3 to 3GPP SA 4 on MV- HEVC Integration and codec string [SC 29/WG 3 N 1334] | ISO/IEC JTC 1/SC 29/WG 03 | Andrijana Brekalo |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [LSin, VOPS, 1461, 22nd August 1200CEST] MPEG System LS on MV-HEVC | Teniou Gilles | Mon, 19 Aug 2024 16:22:55 +0000 |
| --- | --- | --- |

**Revisions**: none

**Online Discussion**: none

**Decision**: noted.

[S4-241461](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241461.zip) is **noted**.

| [S4-241462](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241462.zip) | Liaison statement from SC 29/WG 3 to 3GPP SA 4 on Avatar Representation Formats [SC 29/WG 3 N 1337] | ISO/IEC JTC 1/SC 29/WG 03 | Andrijana Brekalo |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [LSin, FS\_AVATAR, 1462, 22nd August 1200CEST] MPEG System LS on Avatar Rep-format | Teniou Gilles | Mon, 19 Aug 2024 16:23:15 +0000 |
| --- | --- | --- |
| [LSin, FS\_AVATAR, 1462, 22nd August 1200CEST] MPEG System LS on Avatar Rep-format | Imed Bouazizi | Mon, 19 Aug 2024 19:35:41 +0000 |

**Revisions**: none

**Online Discussion**:

* Gilles presents the LS.
* Gilles: If we know for sure we will reply, we can postpone it.
* Gilles: We will tentatively reply with some requirements next time.

**Decision**:

* postponed

[S4-241462](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241462.zip) is **postponed**.

| [S4-241463](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241463.zip) | Liaison statement from SC 29/WG 4 to 3GPP SA 4 on Feature coding for machines [SC 29/WG 4 N 529] | ISO/IEC JTC 1/SC 29/WG 04 | Andrijana Brekalo |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [LSin, FS\_AI4Media, 1463, 22nd August 1200CEST] MPEG Video LS on FCM | Teniou Gilles | Mon, 19 Aug 2024 16:23:26 +0000 |
| --- | --- | --- |
| [LSin, FS\_AI4Media, 1463, 22nd August 1200CEST] MPEG Video LS on FCM | Imed Bouazizi | Tue, 20 Aug 2024 04:27:15 +0000 |
| [[LSin, FS\_AI4Media, 1463, 22nd August 1200CEST] MPEG Video LS on FCM](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;860cf8cc.2408D&S=) | Teniou Gilles | Wed, 21 Aug 2024 23:21:51 +0000 |
| [[LSin, FS\_AI4Media, 1463, 22nd August 1200CEST] MPEG Video LS on FCM](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;73e21fb.2408D&S=) | Eric Yip | Thu, 22 Aug 2024 16:38:11 +0900 |
| [[LSin, FS\_AI4Media, 1463, 22nd August 1200CEST] MPEG Video LS on FCM](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;ce80af3.2408D&S=) | Stephane Onno | Thu, 22 Aug 2024 11:03:31 +0000 |

**Revisions**: none

**Presenter**: Andrijana Brekalo

**Online Discussion**:

**Decision**:

[S4-241463](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241463.zip) is **replied to** in [S4-241745](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241745.zip).

| [S4-241745](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241475.zip) | Reply LS to MPEG on FCM | Samsung Electronics Nordic AB | Andrijana Brekalo |
| --- | --- | --- | --- |

**Revisions**:

| [S4-24XXXX reply LS to MPEG WG4 on FCM.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-24XXXX%20reply%20LS%20to%20MPEG%20WG4%20on%20FCM.docx) | 8/21/2024 23:18 | 22 KB |
| --- | --- | --- |
| [S4-24XXXX\_Samsung reply LS to MPEG WG4 on FCM.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-24XXXX_Samsung%20reply%20LS%20to%20MPEG%20WG4%20on%20FCM.docx) | 8/22/2024 7:32 | 23 KB |
| [S4-24XXXX\_Samsung reply LS to MPEG WG4 on FCM\_Interdigital.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-24XXXX_Samsung%20reply%20LS%20to%20MPEG%20WG4%20on%20FCM_Interdigital.docx) | 8/22/2024 10:56 | 29,2 KB |

**Online Discussion**:

* Stephane presents
* Discussion by email invited on draft text.

**Decision**: Agreement to send a reply.

[S4-241745](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241475.zip) is **presented to SA4 plenary**.

## 9.4 CRs to completed features in Release 18 and earlier

No documents

## 9.5 VOPS (Video Operating Points - Harmonization and Stereo MV-HEVC)

*WID:* [*SP-240060*](https://www.3gpp.org/ftp/tsg_sa/TSG_SA/TSGS_103_Maastricht_2024-03/Docs/SP-240060.zip) *New WID on ‘Video Operating Points - Harmonization and Stereo MV-HEVC’*

| [S4-241478](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241478.zip) | [VOPS] Completion of existing Capabilities | Qualcomm Incorporated, Tencent | Thomas Stockhammer |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [VOPS, 1478, 21st August 1200CEST] Completion of existing Capabilities | Teniou Gilles | Mon, 19 Aug 2024 11:31:29 +0000 |
| --- | --- | --- |
| [[VOPS, 1478, 21st August 1200CEST] Completion of existing Capabilities](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;3e19b0ad.2408C&S=) | Teniou Gilles | Wed, 21 Aug 2024 10:36:15 +0000 |
| [[VOPS, 1478, 21st August 1200CEST] Completion of existing Capabilities](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;46647444.2408C&S=) | Thomas Stockhammer | Wed, 21 Aug 2024 10:40:24 +0000 |
| [[VOPS, 1478, 21st August 1200CEST] Completion of existing Capabilities](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;f51a6719.2408C&S=) | Teniou Gilles | Wed, 21 Aug 2024 10:46:46 +0000 |

**Revisions**: none

**Online Discussion**: none

**Decision**:

* No comment was received,
* The document **S4-241478** is **agreed** and will be implemented into the next version of the Draft TS 26.265

[S4-241478](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241478.zip) is **noted/agreed/revised**.

| [S4-241480](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241480.zip) | [VOPS] System Operation Points | Qualcomm Germany | Thomas Stockhammer |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [VOPS, 1480, 21st August 1200CEST] System Operation Points | Teniou Gilles | Mon, 19 Aug 2024 11:31:33 +0000 |
| --- | --- | --- |
| [VOPS, 1480, 21st August 1200CEST] System Operation Points | Waqar Zia | Tue, 20 Aug 2024 11:44:46 +0200 |
| [[VOPS, 1480, 21st August 1200CEST] System Operation Points](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;fea4b9cb.2408C&S=) | Thomas Stockhammer | Wed, 21 Aug 2024 11:11:03 +0000 |
| [[VOPS, 1480, 21st August 1200CEST] System Operation Points](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;5b25ab77.2408C&S=) | Waqar Zia | Wed, 21 Aug 2024 20:42:56 +0200 |
| [[VOPS, 1480, 21st August 1200CEST] System Operation Points](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;505335db.2408C&S=) | Thomas Stockhammer | Wed, 21 Aug 2024 21:24:00 +0000 |
| [[VOPS, 1480, 21st August 1200CEST] System Operation Points](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;21987f3b.2408C&S=) | Teniou Gilles | Wed, 21 Aug 2024 22:32:06 +0000 |
| [[VOPS, 1480, 21st August 1200CEST] System Operation Points](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;262ad40e.2408D&S=) | Waqar Zia | Thu, 22 Aug 2024 09:41:26 +0200 |
| [[VOPS, 1480, 21st August 1200CEST] System Operation Points](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;9d9f545d.2408D&S=) | Teniou Gilles | Thu, 22 Aug 2024 08:55:23 +0000 |
| [[VOPS, 1480, 21st August 1200CEST] System Operation Points](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;c42d6cd6.2408D&S=) | Thomas Stockhammer | Thu, 22 Aug 2024 11:40:57 +0000 |
| [[VOPS, 1480, 21st August 1200CEST] System Operation Points](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;dd306d49.2408D&S=) | Teniou Gilles | Thu, 22 Aug 2024 11:51:05 +0000 |

**Revisions**:

| [S4-241480r01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241480r01.docx) | 8/22/2024 11:31 | 47,2 KB |
| --- | --- | --- |

**Presenter**: Thomas Stockhammer

**Online Discussion**:

* Gilles summarizes the discussion, offline was requested.
* Thomas: Signal parameters should be included to make the spec technically complete.
* Waqar: Is clause 4.4 limited to stereoscopic video or generic to all kinds of video like monoscopic video?
* Thomas: It’s more fundamental than a content type, it is video signal, and orthogonal to stereo and monoscopic content.
* Waqar: Are those parameters already specified elsewhere in SA4?
* Gilles: TV profiles have some indeed.
* Thomas: We refine it further here, like no interlacing.
* Waqar: Should all those video parameters/constraints go to this new spec?
* Thomas: We just clarify here, like how SDR is defined.

**Decision**:

* 2024/08/21: parked for offline discussion
* 2024/08/22: rev7 is agreed; to be formally revised.

[S4-241480](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241480.zip) is **revised** to [S4-241705](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241705.zip).

 [S4-241705](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241480.zip) is **agreed**.

| [S4-241525](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241525.zip) | [VOPS] Updates on codec string encoding for L-HEVC | Apple Inc. | Waqar Zia |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [VOPS, 1525, 21st August 1200CEST] Updates on codec string encoding for L-HEVC | Teniou Gilles | Mon, 19 Aug 2024 07:53:40 +0000 |
| --- | --- | --- |
| [VOPS, 1525, 21st August 1200CEST] Updates on codec string encoding for L-HEVC | Rufael Mekuria | Mon, 19 Aug 2024 12:44:19 +0000 |
| [VOPS, 1525, 21st August 1200CEST] Updates on codec string encoding for L-HEVC | Thomas Stockhammer | Mon, 19 Aug 2024 12:50:14 +0000 |
| [[VOPS, 1525, 21st August 1200CEST] Updates on codec string encoding for L-HEVC](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;bdb156fa.2408C&S=) | Thomas Stockhammer | Wed, 21 Aug 2024 08:54:38 +0000 |
| [[VOPS, 1525, 21st August 1200CEST] Updates on codec string encoding for L-HEVC](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;893bde14.2408C&S=) | Waqar Zia | Wed, 21 Aug 2024 22:23:55 +0200 |
| [[VOPS, 1525, 21st August 1200CEST] Updates on codec string encoding for L-HEVC](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;1bfeccf5.2408C&S=) | Thomas Stockhammer | Wed, 21 Aug 2024 21:20:20 +0000 |

**Revisions**:

| [S4-241525\_r1.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241525_r1.docx) | 8/21/2024 20:20 | 29 KB |
| --- | --- | --- |

**Presenter**: Waqar Zia

**Online Discussion**:

* Gilles summarizes the discussion
* Thomas: Overloading codec strings is not necessarily the best idea. Decoding and rendering should be considered separately and then see if codec strings is the right choice, also in the case of rendering.
* Emmanouil: MPEG is examining two approaches not yet converging.

**Decision**:

* 2024/08/21: parked, a revision is needed to address the above comments
* 2024/08/22: r1 is agreed as a way forward; to be formally revised.

[S4-241525](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241525.zip) is **revised** to [S4-241703](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241703.zip).

[S4-241703](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241703.zip) is **agreed**.

| [S4-241527](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241527.zip) | [VOPS] Updates for MV-HEVC | Apple Inc., Qualcomm Incorporated | Waqar Zia |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [VOPS, 1527, 21st August 1200CEST] Updates for MV-HEVC | Teniou Gilles | Mon, 19 Aug 2024 07:54:15 +0000 |
| --- | --- | --- |
| [[VOPS, 1527, 21st August 1200CEST] Updates for MV-HEVC](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;be9f370f.2408C&S=) | Teniou Gilles | Wed, 21 Aug 2024 10:42:20 +0000 |

**Revisions**: none

**Presenter**: Waqar Zia

**Online Discussion**:

* Gilles summarizes the discussion - it is basis for future work.

**Decision**:

* The CR is endorsed as basis for future work.

[S4-241527](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241527.zip) is **endorsed**.

| [S4-241528](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241528.zip) | [VOPS] Work Plan | Apple Inc. | Waqar Zia |
| --- | --- | --- | --- |

**E-mail Discussion**:

**Revisions**:

| [S4-241528\_r1.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241528_r1.docx) | 8/22/2024 11:06 | 28,9 KB |
| --- | --- | --- |
| [S4-241528\_r2.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241528_r2.docx) | 8/22/2024 12:25 | 29,1 KB |

**Presenter**: Waqar Zia

**Online Discussion**: none

**Decision**:

* 2024/08/22: Revision r2 is agreed.

[S4-241528](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241528.zip) is **revised** to [S4-241706](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241706.zip) and agreed.

| [S4-241625](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241625.zip) | [VOPS] On adding MV-HEVC capabilities for messaging | Apple Inc. | Waqar Zia |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [VOPS, 1625, 21st August 1200CEST] On adding MV-HEVC capabilities for messaging | Teniou Gilles | Mon, 19 Aug 2024 07:54:00 +0000 |
| --- | --- | --- |
| [VOPS, 1625, 21st August 1200CEST] On adding MV-HEVC capabilities for messaging | Rufael Mekuria | Mon, 19 Aug 2024 12:51:07 +0000 |
| [VOPS, 1625, 21st August 1200CEST] On adding MV-HEVC capabilities for messaging | Waqar Zia | Mon, 19 Aug 2024 15:32:47 +0200 |
| [[VOPS, 1625, 21st August 1200CEST] On adding MV-HEVC capabilities for messaging](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;7e24950a.2408C&S=) | Rufael Mekuria | Tue, 20 Aug 2024 12:33:41 +0000 |
| [[VOPS, 1625, 21st August 1200CEST] On adding MV-HEVC capabilities for messaging](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;423f976e.2408C&S=) | Waqar Zia | Wed, 21 Aug 2024 10:41:24 +0200 |
| [[VOPS, 1625, 21st August 1200CEST] On adding MV-HEVC capabilities for messaging](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;4e7603fa.2408C&S=) | Rufael Mekuria | Wed, 21 Aug 2024 08:57:53 +0000 |
| [[VOPS, 1625, 21st August 1200CEST] On adding MV-HEVC capabilities for messaging](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;f8a0a863.2408C&S=) | Thomas Stockhammer | Wed, 21 Aug 2024 09:02:18 +0000 |
| [[VOPS, 1625, 21st August 1200CEST] On adding MV-HEVC capabilities for messaging](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;b64186b7.2408C&S=) | Waqar Zia | Wed, 21 Aug 2024 21:57:09 +0200 |
| [[VOPS, 1625, 21st August 1200CEST] On adding MV-HEVC capabilities for messaging](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;916f3f3a.2408C&S=) | Thomas Stockhammer | Wed, 21 Aug 2024 20:01:19 +0000 |

**Revisions**:

| [S4-241625\_r1.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241625_r1.docx) | 8/21/2024 19:38 | 28,5 KB |
| --- | --- | --- |

**Presenter**: Waqar Zia

**Online Discussion**:

* Thomas: agree that we are not using the 3GP file format, for the rest we should be more constructively use spec text.

**Decision**:

* 2024/08/21: Revision is expected to address the comments above
* 2024/08/22: r1 is agreed; to be formally revised.

[S4-241625](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241625.zip) is **revised** to [S4-241704](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241704.zip).

S4-241704 is **agreed**.

## 9.6 FS\_AI4Media (Feasibility Study on Artificial Intelligence (AI) and Machine Learning (ML) for Media)

*WID:* [*SP-220328*](https://www.3gpp.org/ftp/tsg_sa/TSG_SA/TSGS_95E_Electronic_2022_03/Docs/SP-220328.zip) *New SID on Artificial Intelligence (AI) and Machine Learning (ML) for Media*

| [S4-241440](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241440.zip) | [FS\_AI4Media] pCR on real-time communication scenarios | China Mobile Com. Corporation,Huawei | Fei Gao |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_AI4Media, 1440, 20th August 1200CEST] pCR on real-time communication scenarios | Teniou Gilles | Mon, 19 Aug 2024 07:09:51 +0000 |
| --- | --- | --- |
| [FS\_AI4Media, 1440, 20th August 1200CEST] pCR on real-time communication scenarios | Serhan Guel (Nokia) | Mon, 19 Aug 2024 16:28:38 +0000 |
| [FS\_AI4Media, 1440, 20th August 1200CEST] pCR on real-time communication scenarios | Eric Yip | Tue, 20 Aug 2024 10:24:20 +0900 |
| [[FS\_AI4Media, 1440, 20th August 1200CEST] pCR on real-time communication scenarios](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;25b0e002.2408C&S=) | 高飞（研究） | Tue, 20 Aug 2024 22:37:41 +0800 |
| [[FS\_AI4Media, 1440, 20th August 1200CEST] pCR on real-time communication scenarios](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;551861e0.2408C&S=) | 高飞（研究） | Tue, 20 Aug 2024 22:39:20 +0800 |

**Revisions**:

| [S4-241440\_NOK.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241440_NOK.docx) | 8/19/2024 16:26 | 240,6 KB |
| --- | --- | --- |
| [S4-241440\_rev1.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241440_rev1.docx) | 8/20/2024 14:35 | 257,5 KB |

**Presenter**: Fei Gao

**Online Discussion**:

* Gilles summarizes the email discussion with the request to clarify that “separate channel” is a “data channel” in section 4.2.5.1 (text and diagram).
* The added reference does not fully correspond to the use case, but seems ok.

**Decision**: agree a revision based on Nokia revision + datachannel.

[S4-241440](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241440.zip) is **revised** to [S4-241647](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241647.zip).

S4-241647 is **agreed.**

| [S4-241508](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241508.zip) | [FS\_AI4Media] pCR on IMS mapping | HUAWEI TECHNOLOGIES Co. Ltd. | Yongjing Zhang |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_AI4Media, 1508, 20th August 1200CEST] pCR on IMS mapping | Teniou Gilles | Mon, 19 Aug 2024 07:10:03 +0000 |
| --- | --- | --- |
| [FS\_AI4Media, 1508, 20th August 1200CEST] pCR on IMS mapping | Teniou Gilles | Mon, 19 Aug 2024 21:39:30 +0000 |
| [FS\_AI4Media, 1508, 20th August 1200CEST] pCR on IMS mapping | Zhangyongjing (Yongjing) | Tue, 20 Aug 2024 01:36:19 +0000 |
| [FS\_AI4Media, 1508, 20th August 1200CEST] pCR on IMS mapping | Imed Bouazizi | Tue, 20 Aug 2024 05:00:02 +0000 |
| [FS\_AI4Media, 1508, 20th August 1200CEST] pCR on IMS mapping | Eric Yip | Tue, 20 Aug 2024 14:11:43 +0900 |
| [FS\_AI4Media, 1508, 20th August 1200CEST] pCR on IMS mapping | Elmira Ramazanirend, Vodafone | Tue, 20 Aug 2024 10:14:50 +0000 |
| [[FS\_AI4Media, 1508, 20th August 1200CEST] pCR on IMS mapping](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;b7501e42.2408C&S=) | Zhangyongjing (Yongjing) | Tue, 20 Aug 2024 11:09:35 +0000 |
| [[FS\_AI4Media, 1508, 20th August 1200CEST] pCR on IMS mapping](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;a4913e80.2408C&S=) | Zhangyongjing (Yongjing) | Tue, 20 Aug 2024 11:43:35 +0000 |
| [[FS\_AI4Media, 1508, 20th August 1200CEST] pCR on IMS mapping](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;d1e26e5e.2408C&S=) | Elmira Ramazanirend, Vodafone | Tue, 20 Aug 2024 13:46:43 +0000 |
| [[FS\_AI4Media, 1508, 20th August 1200CEST] pCR on IMS mapping](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;4dd83a7a.2408C&S=) | Zhangyongjing (Yongjing) | Tue, 20 Aug 2024 14:02:38 +0000 |
| [[FS\_AI4Media, 1508, 20th August 1200CEST] pCR on IMS mapping](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;5df77ea4.2408C&S=) | Zhangyongjing (Yongjing) | Wed, 21 Aug 2024 07:56:03 +0000 |
| [[FS\_AI4Media, 1508, 20th August 1200CEST] pCR on IMS mapping](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;ade37577.2408D&S=) | Stephane Onno | Thu, 22 Aug 2024 09:19:06 +0000 |
| [[FS\_AI4Media, 1508, 20th August 1200CEST] pCR on IMS mapping](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;629f8cc4.2408D&S=) | Zhangyongjing (Yongjing) | Thu, 22 Aug 2024 11:20:12 +0000 |
| [[FS\_AI4Media, 1508, 20th August 1200CEST] pCR on IMS mapping](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;2197c9f.2408D&S=) | Stephane Onno | Thu, 22 Aug 2024 12:53:14 +0000 |

**Revisions**: none

**Presenter**: Yongjing Zhang

**Online Discussion**:

* Gilles summarizes the email discussion. Potentially converge with 1578
* Yongjing: Ok to remove ed notes under 5.4
* Yongjing: For the time being remove the model repository as a way forward.
* Eric: Flow, step 13: can the peer user also do a first inferencing? Two cases to be described.
* Imed: Missing tight integration with IMS. Too similar to over the top scenario. Look for alignment with 1578.
* Gilles will document the two proposals from huawei and Qualcomm as two architectures and procedures in TR

**Decision**:

* tentative merge with 1578.
* agreed for draft TR

[S4-241508](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241508.zip) is **revised** to [S4-241715](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241715.zip)

S4-241715 is **agreed**.

| [S4-241551](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241551.zip) | [FS\_AI4Media] pCR on conclusions for split operations | InterDigital Finland Oy | Stephane Onno |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_AI4Media, 1551, 20th August 1200CEST] pCR on conclusions for split operations | Teniou Gilles | Mon, 19 Aug 2024 07:10:13 +0000 |
| --- | --- | --- |
| [FS\_AI4Media, 1551, 20th August 1200CEST] pCR on conclusions for split operations | Teniou Gilles | Mon, 19 Aug 2024 22:02:33 +0000 |
| [FS\_AI4Media, 1551, 20th August 1200CEST] pCR on conclusions for split operations | Imed Bouazizi | Tue, 20 Aug 2024 04:35:41 +0000 |
| [[FS\_AI4Media, 1551, 20th August 1200CEST] pCR on conclusions for split operations](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;d52fdfe8.2408C&S=) | Stephane Onno | Tue, 20 Aug 2024 12:18:55 +0000 |
| [[FS\_AI4Media, 1551, 20th August 1200CEST] pCR on conclusions for split operations](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;c14fc4ed.2408C&S=) | Stephane Onno | Tue, 20 Aug 2024 22:07:27 +0000 |

**Revisions**: none

| [S4-241551 [FS\_AI4Media] pCR on conclusions for split operations-Rev01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241551%20%5BFS_AI4Media%5D%20pCR%20on%20conclusions%20for%20split%20operations-Rev01.docx) | 8/20/2024 12:17 | 50 KB |
| --- | --- | --- |
| [S4-241551 [FS\_AI4Media] pCR on conclusions for split operations-Rev02.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241551%20%5BFS_AI4Media%5D%20pCR%20on%20conclusions%20for%20split%20operations-Rev02.docx) | 8/20/2024 21:47 | 55 KB |
| [S4-241551 [FS\_AI4Media] pCR on conclusions for split operations-Rev02-GT.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241551%20%5BFS_AI4Media%5D%20pCR%20on%20conclusions%20for%20split%20operations-Rev02-GT.docx) | 8/22/2024 14:22 | 55,2 KB |

**Presenter**: Stephane Onno

**Online Discussion**:

* Gilles summarizes the email discussion.
* Stephane presents the revision.
* Agreement in the adhoc to start conclusion on split aspects of the TR.
* Is RTC including WebRTC and IMS?. No, start from existing. Should add IMS when IMS done.
* Imed: Recommendation to work on 26.506, does is apply to 501?. Not ready to agree on normative changes to the architecture in rel 19, maybe rel 20.
* Emmanouil: disagrees on MPEG work aspects in the conclusion due to its maturity.
* Gaelle: understands concerns on timeframe, but it doesn’t mean we should bring a new WID at the next meeting/within rel 19. Still though we need to conclude. We still need initial conclusions - when that work can be done can take more time.
* Gilles: proposed to turn this document to “initial conclusion in the PD” for discussion in conference call and to provide conclusion for the TR in Orlando.

**Decision**: agreed for PD with online edited version

[S4-241551](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241551.zip) is **revised** to [S4-241723](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241723.zip).

S4-241723 is **agreed.**

| [S4-241552](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241552.zip) | [FS\_AI4Media] pCR on intermediate data compression editor note | InterDigital Finland Oy | Stephane Onno |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_AI4Media, 1552, 20th August 1200CEST] pCR on intermediate data compression editor note | Teniou Gilles | Mon, 19 Aug 2024 07:10:19 +0000 |
| --- | --- | --- |
| [FS\_AI4Media, 1552, 20th August 1200CEST] pCR on intermediate data compression editor note | Teniou Gilles | Mon, 19 Aug 2024 22:09:55 +0000 |
| [FS\_AI4Media, 1552, 20th August 1200CEST] pCR on intermediate data compression editor note | Eric Yip | Tue, 20 Aug 2024 12:52:16 +0900 |
| [FS\_AI4Media, 1552, 20th August 1200CEST] pCR on intermediate data compression editor note | Imed Bouazizi | Tue, 20 Aug 2024 05:27:30 +0000 |
| [[FS\_AI4Media, 1552, 20th August 1200CEST] pCR on intermediate data compression editor note](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;61b68da3.2408C&S=) | Stephane Onno | Tue, 20 Aug 2024 11:39:07 +0000 |
| [[FS\_AI4Media, 1552, 20th August 1200CEST] pCR on intermediate data compression editor note](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;d8bc5e1d.2408C&S=) | Stephane Onno | Tue, 20 Aug 2024 12:21:57 +0000 |
| [[FS\_AI4Media, 1552, 20th August 1200CEST] pCR on intermediate data compression editor note ReV02](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;4b9c75ac.2408C&S=) | Stephane Onno | Tue, 20 Aug 2024 22:16:01 +0000 |

**Revisions**:

| [S4-241552 [FS\_AI4Media] pCR on intermediate data compression editor note Rev01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241552%20%5BFS_AI4Media%5D%20pCR%20on%20intermediate%20data%20compression%20editor%20note%20Rev01.docx) | 8/20/2024 13:56 | 155,8 KB |
| --- | --- | --- |
| [S4-241552 [FS\_AI4Media] pCR on intermediate data compression editor note Rev02.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241552%20%5BFS_AI4Media%5D%20pCR%20on%20intermediate%20data%20compression%20editor%20note%20Rev02.docx) | 8/20/2024 21:47 | 156,8 KB |
| [S4-241552 [FS\_AI4Media] pCR on intermediate data compression editor note.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241552%20%5BFS_AI4Media%5D%20pCR%20on%20intermediate%20data%20compression%20editor%20note.docx) | 8/20/2024 12:17 | 103,9 KB |
| [S4-241552 [FS\_AI4Media] pCR on intermediate data compression editor note Rev02-GT.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241552%20%5BFS_AI4Media%5D%20pCR%20on%20intermediate%20data%20compression%20editor%20note%20Rev02-GT.docx) | 8/22/2024 14:28 | 348,9 KB |

**Presenter**: Stephane Onno

**Online Discussion**:

* Gilles summarizes the email discussion. Stephane presentes rev1
* Imed: where are the numbers for basic quantization coming from? What about pruning? Feels misleading. Results come from the evaluation TR/PD.
* Is FMC comparable to the other 3 rows? Source says yes. Columns indicates the differences (agnostic, retraining etc)
* Imed: compression ratio in table 6.3.4-1 have not been verified
* Gilles, we add a NOTE to address imed’s comment

**Decision**: agreed to TR with online edit version (with NOTE)

[S4-241552](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241552.zip) is **revised**  to [S4-241725](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241725.zip)

S4-241725 is **agreed.**

| [S4-241553](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241553.zip) | [FS\_AI4Media] pCR on update metadata for split operations | InterDigital Finland Oy | Stephane Onno |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_AI4Media, 1553, 20th August 1200CEST] pCR on update metadata for split operations | Teniou Gilles | Mon, 19 Aug 2024 07:10:22 +0000 |
| --- | --- | --- |
| [FS\_AI4Media, 1553, 20th August 1200CEST] pCR on update metadata for split operations | Imed Bouazizi | Tue, 20 Aug 2024 04:04:10 +0000 |
| [[FS\_AI4Media, 1553, 20th August 1200CEST] pCR on update metadata for split operations](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;ba5ce2aa.2408C&S=) | Stephane Onno | Tue, 20 Aug 2024 11:41:11 +0000 |
| [[FS\_AI4Media, 1553, 20th August 1200CEST] pCR on update metadata for split operations Rev 01](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;ae018782.2408C&S=) | Stephane Onno | Tue, 20 Aug 2024 22:24:39 +0000 |
| [[FS\_AI4Media, 1553, 20th August 1200CEST] pCR on update metadata for split operations Rev 01](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;312d8e9e.2408D&S=) | Imed Bouazizi | Thu, 22 Aug 2024 05:49:04 +0000 |
| [[FS\_AI4Media, 1553, 20th August 1200CEST] pCR on update metadata for split operations Rev 01](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;5c1ebf0e.2408D&S=) | Stephane Onno | Thu, 22 Aug 2024 12:51:09 +0000 |

**Revisions**:

| [S4-241553 [FS\_AI4Media] pCR on update metadata for split operations-Rev01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241553%20%5BFS_AI4Media%5D%20pCR%20on%20update%20metadata%20for%20split%20operations-Rev01.docx) | 8/20/2024 21:47 | 56 KB |
| --- | --- | --- |
| [S4-241553 [FS\_AI4Media] pCR on update metadata for split operations-Rev01\_QC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241553%20%5BFS_AI4Media%5D%20pCR%20on%20update%20metadata%20for%20split%20operations-Rev01_QC.docx) | 8/22/2024 5:48 | 53,5 KB |
| [S4-241553 [FS\_AI4Media] pCR on update metadata for split operations-Rev02.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241553%20%5BFS_AI4Media%5D%20pCR%20on%20update%20metadata%20for%20split%20operations-Rev02.docx) | 8/22/2024 12:47 | 56,6 KB |

**Presenter**: Stephane Onno

**Online Discussion**:

* Gilles summarizes the email discussion.
* Imed: document answers to the comment in the contribution (combining tensors,consistent signaling for version, framework are open questions, etc)
* GIlles: ok for the TR to indicate the necessity of normative work on these aspects.
* Proposed to add some text in the intro for that purpose.

**Decision**: revision expected.

[S4-241553](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241553.zip) is **revised to**  [S4-241729](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241729.zip).

S4-241729 is **agreed**.

| [S4-241554](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241554.zip) | [FS\_AI4Media] pCR on compression metadata for split operations | InterDigital Finland Oy | Stephane Onno |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_AI4Media, 1554, 20th August 1200CEST] pCR on compression metadata for split operations | Teniou Gilles | Mon, 19 Aug 2024 07:10:25 +0000 |
| --- | --- | --- |
| [FS\_AI4Media, 1554, 20th August 1200CEST] pCR on compression metadata for split operations | Teniou Gilles | Mon, 19 Aug 2024 22:25:01 +0000 |
| [FS\_AI4Media, 1554, 20th August 1200CEST] pCR on compression metadata for split operations | Imed Bouazizi | Tue, 20 Aug 2024 04:43:47 +0000 |
| [[FS\_AI4Media, 1554, 20th August 1200CEST] pCR on compression metadata for split operations Rev 01](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;6aa75ea7.2408C&S=) | Stephane Onno | Tue, 20 Aug 2024 11:48:50 +0000 |
| [[FS\_AI4Media, 1554, 20th August 1200CEST] pCR on compression metadata for split operations Rev 01](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;4920e075.2408C&S=) | Thomas Stockhammer | Tue, 20 Aug 2024 11:53:59 +0000 |
| [[FS\_AI4Media, 1554, 20th August 1200CEST] pCR on compression metadata for split operations Rev 01](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;793b9f9.2408C&S=) | Stephane Onno | Tue, 20 Aug 2024 12:23:00 +0000 |

**Revisions**:

[S4-241554 [FS\_AI4Media] pCR on compression metadata for split operationsRev01.docx](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241554%20%5BFS_AI4Media%5D%20pCR%20on%20compression%20metadata%20for%20split%20operationsRev01.docx)

**Presenter**: Stephane Onno

**Online Discussion**:

* Gilles summarizes the discussion. Stephane presents the revision
* Imed: same comment than for previous contribution 1553. Would we have a registry of these?
* The note to be added in rev of 1553 for section 6.6 would apply to this contribution

**Decision**: contribution is agreed.

[S4-241554](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241554.zip) is **agreed**.

| [S4-241555](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241555.zip) | [FS\_AI4Media] pCR on update on Split AIML procedure | InterDigital Finland Oy | Stephane Onno |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_AI4Media, 1555, 20th August 1200CEST] pCR on update on Split AIML procedure | Teniou Gilles | Mon, 19 Aug 2024 07:10:33 +0000 |
| --- | --- | --- |
| [FS\_AI4Media, 1555, 20th August 1200CEST] pCR on update on Split AIML procedure | Teniou Gilles | Mon, 19 Aug 2024 22:40:21 +0000 |
| [FS\_AI4Media, 1555, 20th August 1200CEST] pCR on update on Split AIML procedure | Imed Bouazizi | Tue, 20 Aug 2024 04:46:37 +0000 |
| [[FS\_AI4Media, 1555, 20th August 1200CEST] pCR on update on Split AIML procedure Rev 01](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;5834089a.2408C&S=) | Stephane Onno | Tue, 20 Aug 2024 12:02:51 +0000 |
| [[FS\_AI4Media, 1555, 20th August 1200CEST] pCR on update on Split AIML procedure Rev 01](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;22cf573.2408C&S=) | Stephane Onno | Tue, 20 Aug 2024 12:25:23 +0000 |
| [[FS\_AI4Media, 1555, 20th August 1200CEST] pCR on update on Split AIML procedure Rev02](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;4f8ba532.2408C&S=) | Stephane Onno | Tue, 20 Aug 2024 22:33:03 +0000 |

**Revisions**:

| [S4-241555 [FS\_AI4Media] pCR on update on Split AIML procedure Rev01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241555%20%5BFS_AI4Media%5D%20pCR%20on%20update%20on%20Split%20AIML%20procedure%20Rev01.docx) | 8/20/2024 12:17 | 200,8 KB |
| --- | --- | --- |
| [S4-241555 [FS\_AI4Media] pCR on update on Split AIML procedure Rev02.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241555%20%5BFS_AI4Media%5D%20pCR%20on%20update%20on%20Split%20AIML%20procedure%20Rev02.docx) | 8/20/2024 21:47 | 201,3 KB |
| [S4-241555 [FS\_AI4Media] pCR on update on Split AIML procedure Rev02-GT.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241555%20%5BFS_AI4Media%5D%20pCR%20on%20update%20on%20Split%20AIML%20procedure%20Rev02-GT.docx) | 8/22/2024 15:12 | 198,7 KB |

**Presenter**: Stephane Onno

**Online Discussion**:

* Gilles summarizes the email discussion. Stephane presents the revision
* Extra text in 14 could be a note.
* Imed: not every split point is suitable. Should not recommend unsuitable split points. Add to the note: selecting such split points should be discouraged.
* Gaëlle: not all split points would be suitable depending on various conditions.
* Stephane presents r2.
* Extra text in 14 moved to a note.

**Decision**: agree with the online edited version

[S4-241555](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241555.zip) is **revised** to [S4-241742](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241742.zip).

S4-241742 is **agreed**.

| [S4-241556](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241556.zip) | [FS\_AI4Media] Evaluation Permanent Document v0.6.1 | Samsung Electronics Nordic AB | Eric Yip |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_AI4Media, 1556, 20th August 1200CEST] Evaluation Permanent Document v0.6.1 | Teniou Gilles | Mon, 19 Aug 2024 07:11:41 +0000 |
| --- | --- | --- |
| [[FS\_AI4Media, 1556, 20th August 1200CEST] Evaluation Permanent Document v0.6.1](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;bd659178.2408C&S=) | Teniou Gilles | Tue, 20 Aug 2024 11:54:09 +0000 |

**Revisions**: none

**Online Discussion**: none

**Decision**:

* There was no comment.
* The document **S4-241556** is **agreed** as basis for further work.
* A revision is done to integrate the agreements from this meeting

[S4-241556](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241556.zip) is **agreed**.

| [S4-241716](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241716.zip) | [FS\_AI4Media] Evaluation Permanent Document v0.7.0 | Samsung Electronics Nordic AB | Eric Yip |
| --- | --- | --- | --- |

S4-241716 is **presented to SA4 plenary**.

| [S4-241557](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241557.zip) | [FS\_AI4Media] On architecture variants for collaboration scenarios | Samsung Electronics Nordic AB | Eric Yip |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_AI4Media, 1557, 20th August 1200CEST] On architecture variants for collaboration scenarios | Teniou Gilles | Mon, 19 Aug 2024 07:11:00 +0000 |
| --- | --- | --- |
| [FS\_AI4Media, 1557, 20th August 1200CEST] On architecture variants for collaboration scenarios | Teniou Gilles | Mon, 19 Aug 2024 23:06:23 +0000 |
| [FS\_AI4Media, 1557, 20th August 1200CEST] On architecture variants for collaboration scenarios | Imed Bouazizi | Tue, 20 Aug 2024 04:48:13 +0000 |
| [FS\_AI4Media, 1557, 20th August 1200CEST] On architecture variants for collaboration scenarios | Eric Yip | Tue, 20 Aug 2024 15:28:49 +0900 |
| [[FS\_AI4Media, 1557, 20th August 1200CEST] On architecture variants for collaboration scenarios](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;9fe84c5a.2408C&S=) | Teniou Gilles | Tue, 20 Aug 2024 11:48:49 +0000 |

**Revisions**: none

**Online Discussion**: none

**Decision**:

* There was one clarification question that was answered + some support.
* The document **S4-241557** is **agreed** and will be implemented into the next version of the Draft TR 26.927.

[S4-241557](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241557.zip) is **agreed**.

| [S4-241558](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241558.zip) | [FS\_AI4Media] On collaboration scenarios and use cases | Samsung Electronics Nordic AB | Eric Yip |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_AI4Media, 1558, 20th August 1200CEST] On collaboration scenarios and use cases | Teniou Gilles | Mon, 19 Aug 2024 07:11:09 +0000 |
| --- | --- | --- |
| [FS\_AI4Media, 1558, 20th August 1200CEST] On collaboration scenarios and use cases | Teniou Gilles | Mon, 19 Aug 2024 23:14:48 +0000 |
| [FS\_AI4Media, 1558, 20th August 1200CEST] On collaboration scenarios and use cases | Imed Bouazizi | Tue, 20 Aug 2024 04:51:14 +0000 |
| [FS\_AI4Media, 1558, 20th August 1200CEST] On collaboration scenarios and use cases | Eric Yip | Tue, 20 Aug 2024 14:27:13 +0900 |
| [FS\_AI4Media, 1558, 20th August 1200CEST] On collaboration scenarios and use cases | Eric Yip | Tue, 20 Aug 2024 15:18:21 +0900 |
| [[FS\_AI4Media, 1558, 20th August 1200CEST] On collaboration scenarios and use cases](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;f4ea342.2408C&S=) | Teniou Gilles | Tue, 20 Aug 2024 11:51:45 +0000 |
| [[FS\_AI4Media, 1558, 20th August 1200CEST] On collaboration scenarios and use cases](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;4708862b.2408C&S=) | Eric Yip | Wed, 21 Aug 2024 13:52:20 +0900 |

**Revisions**:

| [S4-241558\_r1 [FS\_AI4Media] On collaboration scenarios and use cases.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241558_r1%20%5BFS_AI4Media%5D%20On%20collaboration%20scenarios%20and%20use%20cases.docx) | 8/20/2024 6:17 | 42 KB |
| --- | --- | --- |
| [S4-241558\_r2 [FS\_AI4Media] On collaboration scenarios and use cases.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241558_r2%20%5BFS_AI4Media%5D%20On%20collaboration%20scenarios%20and%20use%20cases.docx) | 8/21/2024 4:50 | 42,9 KB |
| [S4-241558\_r2 [FS\_AI4Media] On collaboration scenarios and use cases-GT.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241558_r2%20%5BFS_AI4Media%5D%20On%20collaboration%20scenarios%20and%20use%20cases-GT.docx) | 8/22/2024 15:17 | 42,6 KB |

**Presenter**: Eric Yip

**Online Discussion**:

* Gilles summarizes the email discussion.
* Imed: the same use case can be realized with different collaboration scenarios. Add a note for that purpose.
* Erik presents r2
* Gilles: should not mention WG in TR, remove SA4 in NOTE
* This section should be updated with the new IMS scenario.

**Decision**: is agreed with online edits

[S4-241558](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241558.zip) is **revised** to [S4-241740](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241740.zip)**.**

S4-241740is **agreed.**

| [S4-241563](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241563.zip) | [FS\_AI4Media] Proposed Updated Time and Work Plan | Samsung Electronics Nordic AB | Eric Yip |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_AI4Media, 1563, 20th August 1200CEST] Workplan | Teniou Gilles | Mon, 19 Aug 2024 13:37:44 +0000 |
| --- | --- | --- |

**Revisions**:

| [S4-241563\_r1 [FS\_AI4Media] Proposed Updated Time and Work Plan v2.1.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241563_r1%20%5BFS_AI4Media%5D%20Proposed%20Updated%20Time%20and%20Work%20Plan%20v2.1.docx) | 8/22/2024 6:44 | 54,9 KB |
| --- | --- | --- |

**Presenter**: Eric Yip

**Online Discussion**: Erik presents the revision (telco dates)

**Decision**:

[S4-241563](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241563.zip) is **revised** to [S4-241707](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241707.zip).

S4-241707 is **agreed and is presented to SA4 plenary.**

| [S4-241578](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241578.zip) | [FS\_AI4Media] Mapping to IMS using DC Applications | Qualcomm France | Imed Bouazizi |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_AI4Media, 1578, 20th August 1200CEST] Mapping to IMS using DC Applications | Teniou Gilles | Mon, 19 Aug 2024 07:11:24 +0000 |
| --- | --- | --- |
| [FS\_AI4Media, 1578, 20th August 1200CEST] Mapping to IMS using DC Applications | Stephane Onno | Mon, 19 Aug 2024 22:12:57 +0000 |
| [FS\_AI4Media, 1578, 20th August 1200CEST] Mapping to IMS using DC Applications | Stephan Wenger | Tue, 20 Aug 2024 02:04:47 +0000 |
| [FS\_AI4Media, 1578, 20th August 1200CEST] Mapping to IMS using DC Applications | Eric Yip | Tue, 20 Aug 2024 14:06:14 +0900 |
| [FS\_AI4Media, 1578, 20th August 1200CEST] Mapping to IMS using DC Applications | Imed Bouazizi | Tue, 20 Aug 2024 05:13:05 +0000 |
| [FS\_AI4Media, 1578, 20th August 1200CEST] Mapping to IMS using DC Applications | Imed Bouazizi | Tue, 20 Aug 2024 05:22:19 +0000 |
| [FS\_AI4Media, 1578, 20th August 1200CEST] Mapping to IMS using DC Applications | Eric Yip | Tue, 20 Aug 2024 14:06:14 +0900 |

**Revisions**:

| [S4-241578\_AI4Media\_mapping\_to\_IMS\_Samsung.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241578_AI4Media_mapping_to_IMS_Samsung.docx) | 8/20/2024 5:04 | 133,1 KB |
| --- | --- | --- |
| [S4-241689](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241689.zip)[\_AI4Media\_mapping\_to\_IMS-GT.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241689_AI4Media_mapping_to_IMS-GT.docx) | 8/22/2024 14:17 | 134 KB |

**Presenter**: Imed Bouazizi

**Online Discussion**:

* Gilles summarizes the email discussion.
* Imed:Main idea is to leverage the data channel concept, flexible with naming, terminology . For intermediate data, possible to update the SDP offer, inference results goes on the data channel.
* Is “media processing task” different than the 3 key topics of the study ? “Inference” is the media processing task. Need to identify what is available on the UE/Network and what the media processing task is. (define it).
* Is the model downloaded by the application as part of the bootstrap? Yes. apply to split too. Would an app support one or multiple model? Multiple. Impact on app config.
* How the MF is related to the configuration (step 5) . need more discussion.
* Gilles invites participants to have an offline session.

**Decision**: Tentative merge with 1508.

[S4-241578](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241578.zip) is **revised to S4-241689**

S4-241689 is **agreed.**

| [S4-241580](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241580.zip) | [FS\_AI4Media] Real-time Translation Test Scenario | Qualcomm France | Imed Bouazizi |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_AI4Media, 1580, 20th August 1200CEST] Real-time Translation Test Scenario | Teniou Gilles | Mon, 19 Aug 2024 07:12:42 +0000 |
| --- | --- | --- |
| [FS\_AI4Media, 1580, 20th August 1200CEST] Real-time Translation Test Scenario | Serhan Guel (Nokia) | Mon, 19 Aug 2024 16:42:58 +0000 |
| [FS\_AI4Media, 1580, 20th August 1200CEST] Real-time Translation Test Scenario | Stephane Onno | Mon, 19 Aug 2024 22:12:39 +0000 |
| [[FS\_AI4Media, 1580, 20th August 1200CEST] Real-time Translation Test Scenario](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;613d245c.2408D&S=) | Imed Bouazizi | Thu, 22 Aug 2024 04:22:13 +0000 |
| [[FS\_AI4Media, 1580, 20th August 1200CEST] Real-time Translation Test Scenario](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;5f4f36c7.2408D&S=) | Imed Bouazizi | Thu, 22 Aug 2024 04:29:15 +0000 |

**Revisions**: none

**Presenter**: Imed Bouazizi

**Online Discussion**:

* Gilles summarizes the e-mail discussion.
* Imed: we agree that we need a test scenario.
* Imed: this proposal is targeted for the evaluation PD.
* Serhan: Did you already select a model?
* Imed:Not selected yet. It depends on the availability of open source models.
* Stephane Onno: For the split case, which model do you intend to split between the network and the UE? LLM model?
* Imed: We also want to study how to split the LLM. A simple split would be after the embedding creation. That would be a good split point, but we have to look at options, in view of feasibility and there may be different split points.
* Stephane: Do you already have a model that works? Or are you developing?
* Imed: The three models are already natural splits. Tokenization could also be split.
* Eric Yip: Is this also relevant for RTC? What separates it from RTC and IMS?
* Imed: Yes, but we so far had no use case for IMS.

**Decision**:

* 2024-08-22: Agreed for the evaluation PD.

[S4-241580](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241580.zip) is **agreed (evaluation PD)**.

| [S4-241586](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241586.zip) | [FS\_AI4Media] pCR on NNC results for compression of model data for automatic speech recognition | Fraunhofer HHI | Gerhard Tech |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_AI4Media, 1586, 20th August 1200CEST] pCR on NNC results for compression of model data for ASR | Teniou Gilles | Mon, 19 Aug 2024 07:11:54 +0000 |
| --- | --- | --- |
| [[FS\_AI4Media, 1586, 20th August 1200CEST] pCR on NNC results for compression of model data for ASR](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;58015f6.2408C&S=) | Teniou Gilles | Tue, 20 Aug 2024 11:59:08 +0000 |

**Revisions**: none

**Online Discussion**: none

**Decision**:

* No comment was received.
* The document **S4-241586** is **agreed** and will be implemented into the next version of the draft TR 26.847.

[S4-241586](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241586.zip) is **agreed**.

| [S4-241597](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241597.zip) | Draft TR 26.927 Study on AIML in 5G services v0.8.1 | Tencent (Editor) | Gilles Teniou |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_AI4Media, 1597, 20th August 1200CEST] Draft TR 26.927 | Teniou Gilles | Mon, 19 Aug 2024 07:09:21 +0000 |
| --- | --- | --- |
| [FS\_AI4Media, 1597, 20th August 1200CEST] Draft TR 26.927 | Teniou Gilles | Mon, 19 Aug 2024 20:22:49 +0000 |
| [[FS\_AI4Media, 1597, 20th August 1200CEST] Draft TR 26.927](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;98f1033d.2408C&S=) | Teniou Gilles | Tue, 20 Aug 2024 11:23:40 +0000 |

**Revisions**: none

**Online Discussion**: none

**Decision**:

* No other comment was received.
* The editorial corrections will be implemented into the next version of the Draft TR.
* The document **S4-241597** is **agreed** as basis for further work.

[S4-241597](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241597.zip) is **agreed**.

## 9.7 FS\_FGS (Feasibility Study on Film Grain Synthesis)

*WID:* [*SP-230539*](https://www.3gpp.org/ftp/TSG_SA/TSG_SA/TSGS_100_Taipei_2023-06/Docs/SP-230539.zip) *New SID on Feasibility Study on Film Grain Synthesis*

| [S4-241482](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241482.zip) | [FS\_FGS] Draft TR 26.8xx | Qualcomm Germany | Thomas Stockhammer |
| --- | --- | --- | --- |

**E-mail Discussion**: see 1596

**Revisions**:

| [S4-241596r1.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241596r1.docx) | 8/22/2024 12:23 | 8140,8 KB |
| --- | --- | --- |

**Presenter**: Thomas Stockhammer

**Online Discussion**:

* Merged with 1596

**Decision**: merge with 1596

[S4-241482](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241482.zip) is **merged** with S4-241596.

| [S4-241483](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241483.zip) | Proposed Updates to Feasibility Study on Film Grain synthesis | Qualcomm Incorporated | Thomas Stockhammer |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_FGS, 1483, 22nd August 1200CEST] Proposed Updates to SID on FGS | Teniou Gilles | Mon, 19 Aug 2024 10:42:38 +0000 |
| --- | --- | --- |

**Revisions**: none

**Presenter**: Thomas Stockhammer

**Online Discussion**:

* Add an editor for the TR?
* Brian confirms to be the editor

**Decision**:

* agreed with the addition of Brian as editor and source being Video SWG

[S4-241483](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241483.zip) is revised to [S4-241720](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241720.zip)

S4-241720 **is agreed and presented to SA4 plenary**.

| [S4-241596](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241596.zip) | Proposed internal TR for the FS\_FGS study | Tencent | Gilles Teniou |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_FGS, 1482&1596, 22nd August 1200CEST] Draft TR on FS\_FGS | Teniou Gilles | Mon, 19 Aug 2024 10:42:53 +0000 |
| --- | --- | --- |
| [[FS\_FGS, 1482&1596, 22nd August 1200CEST] Draft TR on FS\_FGS](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;e9fd530f.2408C&S=) | Gaëlle Martin-Cocher | Wed, 21 Aug 2024 15:13:03 +0000 |
| [[FS\_FGS, 1482&1596, 22nd August 1200CEST] Draft TR on FS\_FGS](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;99566ead.2408C&S=) | Lee, Brian | Wed, 21 Aug 2024 16:56:38 +0000 |
| [[FS\_FGS, 1482&1596, 22nd August 1200CEST] Draft TR on FS\_FGS](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;2c446058.2408C&S=) | Madhukar Budagavi | Wed, 21 Aug 2024 21:16:36 +0000 |
| [[FS\_FGS, 1482&1596, 22nd August 1200CEST] Draft TR on FS\_FGS](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;f32d892a.2408C&S=) | Thomas Stockhammer | Wed, 21 Aug 2024 21:29:15 +0000 |
| [[FS\_FGS, 1482&1596, 22nd August 1200CEST] Draft TR on FS\_FGS](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;9ffdae06.2408C&S=) | Madhukar Budagavi | Wed, 21 Aug 2024 21:48:00 +0000 |
| [[FS\_FGS, 1482&1596, 22nd August 1200CEST] Draft TR on FS\_FGS](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;8271ae14.2408C&S=) | Teniou Gilles | Wed, 21 Aug 2024 22:02:27 +0000 |
| [[FS\_FGS, 1482&1596, 22nd August 1200CEST] Draft TR on FS\_FGS](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;e0ef9137.2408C&S=) | Teniou Gilles | Wed, 21 Aug 2024 22:05:33 +0000 |
| [[FS\_FGS, 1482&1596, 22nd August 1200CEST] Draft TR on FS\_FGS](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;3907a9de.2408C&S=) | Teniou Gilles | Wed, 21 Aug 2024 22:10:06 +0000 |
| [[FS\_FGS, 1482&1596, 22nd August 1200CEST] Draft TR on FS\_FGS](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;740c9c0c.2408C&S=) | Teniou Gilles | Wed, 21 Aug 2024 22:17:17 +0000 |
| [[FS\_FGS, 1482&1596, 22nd August 1200CEST] Draft TR on FS\_FGS](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;97705725.2408D&S=) | Thomas Stockhammer | Thu, 22 Aug 2024 08:44:43 +0000 |
| [[FS\_FGS, 1482&1596, 22nd August 1200CEST] Draft TR on FS\_FGS](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;7fc6416e.2408D&S=) | Teniou Gilles | Thu, 22 Aug 2024 12:30:38 +0000 |

**Revisions**:

| [S4-241596r1.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241596r1.docx) | 8/22/2024 12:23 | 8140,8 KB |
| --- | --- | --- |
| [S4-241596r2.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241596r2.docx) | 8/22/2024 14:48 | 8141 KB |

| [S4-24xxxx Cover page for presentation to TSG SA - TR 26.8xx v1.0.0.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-24xxxx%20Cover%20page%20for%20presentation%20to%20TSG%20SA%20-%20TR%2026.8xx%20v1.0.0.docx) | 8/22/2024 12:30 | 20,6 KB |
| --- | --- | --- |
| [S4-24xxxx Cover page for presentation to TSG SA - TR 26.8xx v1.0.0-r1.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-24xxxx%20Cover%20page%20for%20presentation%20to%20TSG%20SA%20-%20TR%2026.8xx%20v1.0.0-r1.docx) | 8/22/2024 14:56 | 20,6 KB |
| [S4-24xxxx Cover page for presentation to TSG SA - TR 26.933 V1.0.0.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-24xxxx%20Cover%20page%20for%20presentation%20to%20TSG%20SA%20-%20TR%2026.933%20V1.0.0.docx) | 8/22/2024 12:28 | 20,6 KB |

**Presenter**: Gilles Teniou

**Online Discussion**:

* R1 fixes typos of models, includes clause 9 (communication with JVET) and 10 (conclusion).
	+ JND was not agreed at previous meeting, hence not included
	+ Support for this version.
* Candidate cover page was discussed. Offline comments invited. TDOC AA will go to plenary.

**Decision**: agree r2 with online edits

[S4-241596](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241596.zip) is **revised** to [S4-241750](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241750.zip).

S4-241750 is **agreed.**

## 9.8 FS\_AVATAR (Feasibility Study on Avatars for Real-Time Communication)

*WID:* [*SP-230544*](https://www.3gpp.org/ftp/TSG_SA/TSG_SA/TSGS_100_Taipei_2023-06/Docs/SP-230544.zip) *New SID on Feasibility Study on Avatars for Real-Time Communication*.

| [S4-241489](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241489.zip) | [FS\_AVATAR] Mesh-based avatar protection | China Mobile Com. Corporation | Jiayi Xu |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_AVATAR, 1489, 21st August 1200CEST] Mesh-based avatar protection | Teniou Gilles | Mon, 19 Aug 2024 08:07:56 +0000 |
| --- | --- | --- |
| [FS\_AVATAR, 1489, 21st August 1200CEST] Mesh-based avatar protection | Imed Bouazizi | Mon, 19 Aug 2024 18:04:19 +0000 |
| [FS\_AVATAR, 1489, 21st August 1200CEST] Mesh-based avatar protection | Xu Jiayi | Tue, 20 Aug 2024 13:01:06 +0800 |
| [FS\_AVATAR, 1489, 21st August 1200CEST] Mesh-based avatar protection | Ahmed Hamza | Tue, 20 Aug 2024 05:45:02 +0000 |
| [FS\_AVATAR, 1489, 21st August 1200CEST] Mesh-based avatar protection | Xu Jiayi | Tue, 20 Aug 2024 17:03:53 +0800 |
| [[FS\_AVATAR, 1489, 21st August 1200CEST] Mesh-based avatar protection](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;b9f1107f.2408C&S=) | Xu Jiayi | Wed, 21 Aug 2024 14:47:25 +0800 |
| [[FS\_AVATAR, 1489, 21st August 1200CEST] Mesh-based avatar protection](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;aaf4efc0.2408D&S=) | Xu Jiayi | Thu, 22 Aug 2024 10:45:00 +0800 |

**Revisions**:

| [S4-241489\_[FS\_AVATAR] 3D watermarking for mesh-based avatar protection\_v5\_r1.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241489_%5BFS_AVATAR%5D%203D%20watermarking%20for%20mesh-based%20avatar%20protection_v5_r1.docx) | 8/21/2024 6:34 | 288,6 KB |
| --- | --- | --- |
| [S4-241489\_[FS\_AVATAR] 3D watermarking for mesh-based avatar protection\_v5\_r2.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241489_%5BFS_AVATAR%5D%203D%20watermarking%20for%20mesh-based%20avatar%20protection_v5_r2.docx) | 8/22/2024 2:37 | 287,1 KB |

**Presenter**: Jiayi Xu

**Online Discussion**:

* Gilles summarizes the discussion.
* Jiayi presents the changes in r1.
* Imed: Some further refinements should be needed about how watermarking should be used, e.g. regarding threats. Avatars are captured once and used in several call and not generated every time, this is why bullet 2 is problematic.
* Jiayi: This was just an example of how the watermarking could be used in a AR call.
* Imed: Maybe adding a note about how to usage of the watermarking is for further study instead of the example provided in this revision.
* Gilles: Add the note in the introduction.

**Decision**:

21/08: Parked, revision expected.

22/08: R2 is agreed.

[S4-241489](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241489.zip) is **revised to** [**S4-241743**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241743.zip).

S4-24 1743 is **agreed**.

| [S4-241509](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241509.zip) | [FS\_AVATAR] pCR on IMS mapping | HUAWEI TECHNOLOGIES Co. Ltd. | Yongjing Zhang |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_AVATAR, 1509, 21st August 1200CEST] pCR on IMS mapping | Teniou Gilles | Mon, 19 Aug 2024 08:10:46 +0000 |
| --- | --- | --- |
| [FS\_AVATAR, 1509, 21st August 1200CEST] pCR on IMS mapping | Imed Bouazizi | Tue, 20 Aug 2024 02:58:33 +0000 |
| [FS\_AVATAR, 1509, 21st August 1200CEST] pCR on IMS mapping | Eric Yip | Tue, 20 Aug 2024 15:48:34 +0900 |
| [FS\_AVATAR, 1509, 21st August 1200CEST] pCR on IMS mapping | Zhangyongjing (Yongjing) | Tue, 20 Aug 2024 10:57:08 +0000 |
| [[FS\_AVATAR, 1509, 21st August 1200CEST] pCR on IMS mapping](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;a97248eb.2408C&S=) | Zhangyongjing (Yongjing) | Wed, 21 Aug 2024 09:12:25 +0000 |
| [[FS\_AVATAR, 1509, 21st August 1200CEST] pCR on IMS mapping](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;a95ac280.2408D&S=) | Zhangyongjing (Yongjing) | Thu, 22 Aug 2024 09:20:33 +0000 |

**Revisions**:

| [S4-241509\_r01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241509_r01.docx) | 8/21/2024 9:09 | 433,2 KB |
| --- | --- | --- |
| [S4-241509\_r02.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241509_r02.docx) | 8/22/2024 9:04 | 447,3 KB |

**Presenter**: Yongjing Zhang

**Online Discussion**:

* Gilles summarizes the discussion.
* Yongjing presents the changes.
* Imed: Scene management maintains the states in the call for it is part of the AS. The network rendering is different and doesn’t do scene management.
* Yongjing: Can we move it to the AS then?
* OK
* Gazi: I don’t think SA2 has excluded the generation of the avatar. It could be simple avatar generation not necessarily photorealistic avatar and thus not all modes have the same level of resource requirements.
* Ahmed: Same, this option is good to have.
* Imed: We should expect revision in the future based on how SA2 does those call flows, even in the naming like BAR. Since it is a moving target, it is ok to put in the PD but more changes will be needed.
* Eric: Avatar storage is good to be kept in the UE.
* Offline work to happen on how to best do that.
* R2 presented, diagram modified (avatar storage/Scene managmeent) and corresponding text.
* Imed: where does it go? PD? Wait for SA2 before going to TR. need to check call flows.
* Imed: add NOTE saying this will be updated based on the progress of SA2

**Decision**:

* 21/08: Parked, revision expected.
* 22/08: r2 is agreed for PD, editor will add a note regarding update based on SA2 progress

[S4-241509](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241509.zip) is **revised** to [S4-241744](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241744.zip),

S4-241744 is **agreed**.

| [S4-241515](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241515.zip) | [FS\_AVATAR] OpenXR Tracking Framework for Avatar | Qualcomm France | Imed Bouazizi |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_AVATAR, 1515, 21st August 1200CEST] OpenXR Tracking Framework for Avatar | Teniou Gilles | Mon, 19 Aug 2024 08:11:00 +0000 |
| --- | --- | --- |
| [[FS\_AVATAR, 1515, 21st August 1200CEST] OpenXR Tracking Framework for Avatar](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;69a2c4a9.2408C&S=) | Teniou Gilles | Wed, 21 Aug 2024 12:53:39 +0000 |
| [[FS\_AVATAR, 1515, 21st August 1200CEST] OpenXR Tracking Framework for Avatar](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;f15c959d.2408C&S=) | Ahmed Hamza | Wed, 21 Aug 2024 14:02:15 +0000 |

**Revisions**: none

**Presenter**: Imed Bouazizi

**Online Discussion**:

* Gilles summarizes the discussion.
* Gilles: It is to be agreed but it was not clear what was the proposal.
* Ahmed: I provided a late comment. Being compatible with OpenXR is fine but having it as a requirement is a different thing. Recommendation would be better instead of a requirement.
* Imed: The idea is that whatever avatar format we pick, it should be compatible with the tracking offered by OpenXR. We think it should be a requirement for defining our avatar solution.
* Gilles: Is it the same philosophy as in MeCAR? Ie. the solution should at least work with OpenXR but also work with others?
* Imed: yes.
* Ahmed: But the current OpenXR extensions would be very limiting for our solution.
* Imed: Yes, we should also consider future extensions being drafted or at least we should show it is possible to be mapped on those OpenXR extensions. Point is driving the avatar should be feasible in some way.
* Ahmed: Ok but the current text is not clear on what is required.
* Imed: Ok, I will revise that is not about requiring certain OpenXR extensions.
* Gazi: Concerns about the term “natively”.
* Imed: Bad choice of wording, I will rewrite.
* Imed present 1688.
* Ahmed: how do we know a format supports future extensions?
* Imed: the format should support this capability by signaling
* Yongjing: add “3D” before avatar representation format, avoid shall
* Gilles clarifies this is for PD

**Decision**:

* 21/08: Parked, expected revision.
* 22/08: agree for PD with online edits

[S4-241515](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241515.zip) is **revised to** [**S4-241688**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241688.zip).

S4-241688 is **agreed**.

| [S4-241516](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241516.zip) | [FS\_AVATAR] User-avatar authentication in AR calls | Qualcomm France | Imed Bouazizi |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_AVATAR, 1516, 21st August 1200CEST] User-avatar authentication in AR calls | Teniou Gilles | Mon, 19 Aug 2024 08:08:28 +0000 |
| --- | --- | --- |
| [FS\_AVATAR, 1516, 21st August 1200CEST] User-avatar authentication in AR calls | Ahmed Hamza | Tue, 20 Aug 2024 04:30:54 +0000 |
| [FS\_AVATAR, 1516, 21st August 1200CEST] User-avatar authentication in AR calls | Eric Yip | Tue, 20 Aug 2024 17:16:38 +0900 |
| [[FS\_AVATAR, 1516, 21st August 1200CEST] User-avatar authentication in AR calls](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;2862fbcd.2408C&S=) | Imed Bouazizi | Wed, 21 Aug 2024 05:09:22 +0000 |
| [[FS\_AVATAR, 1516, 21st August 1200CEST] User-avatar authentication in AR calls](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;9ccb0ae3.2408C&S=) | Imed Bouazizi | Wed, 21 Aug 2024 05:12:17 +0000 |

**Revisions**:

| [S4-241516\_avatar\_authentication\_r01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241516_avatar_authentication_r01.docx) | 8/21/2024 5:30 | 187,9 KB |
| --- | --- | --- |

**Presenter**: Imed Bouazizi

**Online Discussion**:

* Gilles summarizes the discussion.
* Imed presents r01.
* Imed: The purpose is to collect requirements about the avatar representation format. As editor, I will create a placeholder in the PD for those requirements.
* Imed: Question to the group, we could share those requirements to MPEG when ready since MPEG is developing an Avatar format in which we seem to be interested in SA4, what do people think?
* Ahmed: Good idea.
* Gilles: Good idea.

**Decision**:

[S4-241516](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241516.zip) is **revised** to [S4-241679](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241679.zip).

S4-241679 is **agreed**.

| [S4-241517](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241517.zip) | [FS\_AVATAR] 3DGS Avatar Representation | China Mobile Com. Corporation | Jiayi Xu |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_AVATAR, 1517, 21st August 1200CEST] 3DGS Avatar Representation | Teniou Gilles | Mon, 19 Aug 2024 08:09:13 +0000 |
| --- | --- | --- |
| [FS\_AVATAR, 1517, 21st August 1200CEST] 3DGS Avatar Representation | Imed Bouazizi | Mon, 19 Aug 2024 19:08:26 +0000 |
| [FS\_AVATAR, 1517, 21st August 1200CEST] 3DGS Avatar Representation | Ahmed Hamza | Tue, 20 Aug 2024 05:34:25 +0000 |
| [FS\_AVATAR, 1517, 21st August 1200CEST] 3DGS Avatar Representation | Xu Jiayi | Tue, 20 Aug 2024 17:26:07 +0800 |
| [FS\_AVATAR, 1517, 21st August 1200CEST] 3DGS AvatarRepresentation | Xu Jiayi | Tue, 20 Aug 2024 14:39:45 +0800 |

**Revisions**: none

**Presenter**: Jiayi Xu

**Online Discussion**:

* Gilles summarizes the discussion.
* Jiayi: This was for information that this format is used for avatar. It should be at least documented.
* Imed: Not denying those formats are promising and big names are exploring this for avatar but too early for release 19. Up-to-date references would be good.
* Ahmed: Documenting is ok. But same position that this is not for release 19 as it is not technically mature.
* Gilles: If we put this in the PD, is it ok to add a note that this is not a solution for release 19 but could be used as a baseline for the future?
* Yongjing: Future proof design is desirable when working on release 19 solution.
* Imed: To avoid issues when working on release 19, such a note would be good in the PD.

**Decision**: agreed

[S4-241517](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241517.zip) is **agreed**.

| [S4-241565](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241565.zip) | [FS\_Avatar]Usage of the term “Digital Asset Container (DAC)” for Avatar Storage  | Nokia | Daniel Philip VENMANI |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_AVATAR, 1565, 21st August 1200CEST] term “Digital Asset Container (DAC)” | Teniou Gilles | Mon, 19 Aug 2024 08:08:51 +0000 |
| --- | --- | --- |
| [FS\_AVATAR, 1565, 21st August 1200CEST] term “Digital Asset Container (DAC)” | Imed Bouazizi | Mon, 19 Aug 2024 18:46:25 +0000 |
| [FS\_AVATAR, 1565, 21st August 1200CEST] term “Digital Asset Container (DAC)” | Ahmed Hamza | Mon, 19 Aug 2024 20:43:49 +0000 |
| [FS\_AVATAR, 1565, 21st August 1200CEST] term “Digital Asset Container (DAC)” | Eric Yip | Tue, 20 Aug 2024 15:57:13 +0900 |
| [FS\_AVATAR, 1565, 21st August 1200CEST] term “Digital Asset Container (DAC)” | Daniel VENMANI (Nokia) | Tue, 20 Aug 2024 11:32:13 +0100 |

**Revisions**: none

**Presenter**: Daniel Philip VENMANI

**Online Discussion**:

* Gilles summarizes the discussion.
* Daniel: I wanted to clarify Avatar storage and Digital Asset Container in SA2 since those terms have almost the same definitions. And it seems they are based on the email discussion.

**Decision**: noted

[S4-241565](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241565.zip) is **noted**.

| [S4-241590](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241590.zip) | [FS\_AVATAR] pCR on MPEG Avatar Representation Format | InterDigital Canada | Ahmed Hamza |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_AVATAR, 1590, 21st August 1200CEST] pCR on MPEG Avatar Rep-Format | Teniou Gilles | Mon, 19 Aug 2024 08:09:34 +0000 |
| --- | --- | --- |
| [FS\_AVATAR, 1590, 21st August 1200CEST] pCR on MPEG Avatar Rep-Format | Imed Bouazizi | Tue, 20 Aug 2024 02:49:15 +0000 |
| [[FS\_AVATAR, 1590, 21st August 1200CEST] pCR on MPEG Avatar Rep-Format](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;212a1770.2408C&S=) | Ahmed Hamza | Wed, 21 Aug 2024 06:04:55 +0000 |

**Revisions**:

| [S4-241590\_rev01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241590_rev01.docx) | 8/21/2024 6:04 | 62,4 KB |
| --- | --- | --- |

**Presenter**: Ahmed Hamza

**Online Discussion**:

* Gilles summarizes the discussion.
* Ahmed presents the changes.
* Gilles: Imed, do you think we should use the same categorisation for our requirements?
* Imed: I think we should study those and focus on what we think is missing from our point of view.

**Decision**:

* R01 is agreeable. Needs revision.

[S4-241590](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241590.zip) is **revised** to [S4-241687](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241687.zip).

S4-241687 is **agreed**.

| [S4-241591](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241591.zip) | [FS\_AVATAR] pCR on Reference Architecture Mapping to Non-IMS Services | InterDigital Canada | Ahmed Hamza |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_AVATAR, 1591, 21st August 1200CEST] pCR on Reference Architecture Mapping to Non-IMS Services | Teniou Gilles | Mon, 19 Aug 2024 08:11:15 +0000 |
| --- | --- | --- |
| [FS\_AVATAR, 1591, 21st August 1200CEST] pCR on Reference Architecture Mapping to Non-IMS Services | Imed Bouazizi | Tue, 20 Aug 2024 03:19:11 +0000 |
| [FS\_AVATAR, 1591, 21st August 1200CEST] pCR on Reference Architecture Mapping to Non-IMS Services | Eric Yip | Tue, 20 Aug 2024 16:40:47 +0900 |
| [[FS\_AVATAR, 1591, 21st August 1200CEST] pCR on Reference Architecture Mapping to Non-IMS Services](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;d7fb8632.2408C&S=) | Yoshihiro Inoue | Tue, 20 Aug 2024 11:42:36 +0000 |
| [[FS\_AVATAR, 1591, 21st August 1200CEST] pCR on Reference Architecture Mapping to Non-IMS Services](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;e375c659.2408C&S=) | Ahmed Hamza | Tue, 20 Aug 2024 19:44:14 +0000 |
| [[FS\_AVATAR, 1591, 21st August 1200CEST] pCR on Reference Architecture Mapping to Non-IMS Services](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;eaf7ad96.2408C&S=) | Ahmed Hamza | Tue, 20 Aug 2024 19:46:14 +0000 |
| [[FS\_AVATAR, 1591, 21st August 1200CEST] pCR on Reference Architecture Mapping to Non-IMS Services](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;6cf4b493.2408C&S=) | Ahmed Hamza | Tue, 20 Aug 2024 19:56:39 +0000 |
| [[FS\_AVATAR, 1591, 21st August 1200CEST] pCR on Reference Architecture Mapping to Non-IMS Services](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;5b6b6927.2408C&S=) | Yoshihiro Inoue | Wed, 21 Aug 2024 10:02:41 +0000 |
| [[FS\_AVATAR, 1591, 21st August 1200CEST] pCR on Reference Architecture Mapping to Non-IMS Services](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;1cb1911e.2408D&S=) | Ahmed Hamza | Thu, 22 Aug 2024 07:38:54 +0000 |
| [[FS\_AVATAR, 1591, 21st August 1200CEST] pCR on Reference Architecture Mapping to Non-IMS Services](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;5460b33e.2408D&S=) | Yoshihiro Inoue | Thu, 22 Aug 2024 10:33:13 +0000 |
| [[FS\_AVATAR, 1591, 21st August 1200CEST] pCR on Reference Architecture Mapping to Non-IMS Services](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;ba6bed5a.2408D&S=) | Ahmed Hamza | Thu, 22 Aug 2024 13:20:01 +0000 |
| [[FS\_AVATAR, 1591, 21st August 1200CEST] pCR on Reference Architecture Mapping to Non-IMS Services](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;697f77f7.2408D&S=) | Yoshihiro Inoue | Thu, 22 Aug 2024 15:34:15 +0000 |

**Revisions**:

| [S4-241591\_r01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241591_r01.docx) | 8/22/2024 7:36 | 335,6 KB |
| --- | --- | --- |
| [S4-241591\_r02.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241591_r02.docx) | 8/22/2024 13:18 | 516,1 KB |

**Presenter**: Ahmed Hamza

**Online Discussion**:

* Gilles summarizes the discussion.
* Ahmed: Revision to be provided based on Eric’s comment.
* Imed: Not sure what use case we target here.If it is OTT, what do you need? In the cloud, everything could be proprietary. I don’t see the need for normative work for non-IMS.
* Ahmed: Avatar call is not restricted to IMS. In the TR, we already have a placeholder for non IMS, and this provides an input for that.
* Imed: Ok to document but worried about normative work on this in release 19.
* Yoshihiro: What normative changes are expected?
* Ahmed: Examples are negotiation capabilities. Architecture will be similar as for RTC.
* Gilles: My understanding is no impact on the architecture but work on enabling the functionality, e.g. the format negotiation.
* Ahmed: Correct.
* Ahmed presents r2.
* Yoshihiro: propose to modify the description under the Figure 12 as follows, instead of replacing "avatar application" to "RTC application" in the description.
* Yongjing: the scene management may be outside the media function box but still in the media AS
* Yoshihiro: where should scene management go if it is outside MF?
* Gilles: propose to add a note “the proper location of scene management is ??” instead in the description of the figure

**Decision**:

* 21/08: Parked, revision expected.
* 22/08: R2+ edits and note agreed to TR

[S4-241591](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241591.zip) is **revised** to [S4-241686](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241686.zip).

S4-241686 is **agreed**.

| [S4-241593](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241593.zip) | [FS\_AVATAR] On the Message Format and Carriages for Skeletal Information for Animation | QUALCOMM Europe Inc. - Italy | Ma Liangping |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_AVATAR, 1593, 21st August 1200CEST] Skeletal Information for Animation | Teniou Gilles | Mon, 19 Aug 2024 08:10:23 +0000 |
| --- | --- | --- |
| [FS\_AVATAR, 1593, 21st August 1200CEST] Skeletal Information for Animation | Ahmed Hamza | Tue, 20 Aug 2024 05:14:03 +0000 |

**Revisions**: none

**Presenter**: Ma Liangping

**Online Discussion**:

* Gilles summarizes the discussion.
* Imed: We think this data is bulky and can be quite large. The main proposal is that the animation stream should use the data channel for which we could define a format later.
* Ahmed: Other groups are defining the format, we should not do it here too. Too early to talk about the carriage since we don’t know the format yet. Fundamentally, I think the animation stream is media data not metadata so we cannot agree that data channel is the right way.

**Decision**: noted

[S4-241593](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241593.zip) is **noted**.

## 9.9 FS\_Beyond2D (Study on Beyond 2D Video)

*WID:* [*SP-240479*](https://www.3gpp.org/ftp/tsg_sa/TSG_SA/TSGS_103_Maastricht_2024-03/Docs/SP-240479.zip) *New SID on Feasibility Study on Beyond 2D Video*

| [S4-241481](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241481.zip) | [FS\_Beyond2D] Representation Format - Extended Stereoscopic Video | Qualcomm Germany | Thomas Stockhammer |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_Beyond2D, 1481, 21st August 1200CEST] Rep-formats - Extended Stereoscopic Video | Teniou Gilles | Mon, 19 Aug 2024 07:40:26 +0000 |
| --- | --- | --- |
| [[FS\_Beyond2D, 1481, 21st August 1200CEST] Rep-formats - Extended Stereoscopic Video](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;61be2ee7.2408C&S=) | Ralf Schaefer | Tue, 20 Aug 2024 13:38:33 +0000 |
| [[FS\_Beyond2D, 1481, 21st August 1200CEST] Rep-formats - Extended Stereoscopic Video](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;6e89c746.2408C&S=) | Serhan Guel (Nokia) | Tue, 20 Aug 2024 18:15:26 +0000 |
| [[FS\_Beyond2D, 1481, 21st August 1200CEST] Rep-formats - Extended Stereoscopic Video](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;ab382e3e.2408C&S=) | Teniou Gilles | Wed, 21 Aug 2024 10:55:31 +0000 |
| [[FS\_Beyond2D, 1481, 21st August 1200CEST] Rep-formats - Extended Stereoscopic Video](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;3c12c87f.2408C&S=) | Serhan Guel (Nokia) | Wed, 21 Aug 2024 11:08:37 +0000 |
| [[FS\_Beyond2D, 1481, 21st August 1200CEST] Rep-formats - Extended Stereoscopic Video](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;49194f5c.2408C&S=) | Thomas Stockhammer | Wed, 21 Aug 2024 11:31:28 +0000 |
| [[FS\_Beyond2D, 1481, 21st August 1200CEST] Rep-formats - Extended Stereoscopic Video](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;ce9174f9.2408D&S=) | Thomas Stockhammer | Thu, 22 Aug 2024 09:51:07 +0000 |
| [[FS\_Beyond2D, 1481, 21st August 1200CEST] Rep-formats - Extended Stereoscopic Video](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;48976d5a.2408D&S=) | Serhan Guel (Nokia) | Thu, 22 Aug 2024 10:36:20 +0000 |
| [[FS\_Beyond2D, 1481, 21st August 1200CEST] Rep-formats - Extended Stereoscopic Video](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;50f5b98e.2408D&S=) | Thomas Stockhammer | Thu, 22 Aug 2024 10:54:32 +0000 |
| [[FS\_Beyond2D, 1481, 21st August 1200CEST] Rep-formats - Extended Stereoscopic Video](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;d79e7810.2408D&S=) | Serhan Guel (Nokia) | Thu, 22 Aug 2024 11:29:06 +0000 |
| [[FS\_Beyond2D, 1481, 21st August 1200CEST] Rep-formats - Extended Stereoscopic Video](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;441491e5.2408D&S=) | Ralf Schaefer | Thu, 22 Aug 2024 12:31:37 +0000 |
| [[FS\_Beyond2D, 1481, 21st August 1200CEST] Rep-formats - Extended Stereoscopic Video](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;7d725254.2408D&S=) | Thomas Stockhammer | Thu, 22 Aug 2024 12:51:11 +0000 |

**Revisions**:

| [S4-241481-pCR26956-Stereo InterDigital.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241481-pCR26956-Stereo%20InterDigital.docx) | 2024-08-20 13:36 | 61,8 KB |
| --- | --- | --- |
| [S4-241481\_NOK.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241481_NOK.docx) | 2024-08-20 18:12 | 60,7 KB |
| [S4-241481\_InterDigital\_NOK.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241481_InterDigital_NOK.docx) | 2024-08-21 11:07 | 62,9 KB |
| [S4-241481r01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241481r01.docx) | 2024-08-21 11:31 | 65,1 KB |
| [S4-241481r02.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241481r02.docx) | 2024-08-22 09:50 | 67,2 KB |
| [S4-241481r02\_NOK.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241481r02_NOK.docx) | 2024-08-22 10:31 | 67,5 KB |
| [S4-241481r02\_NOK\_InterDigital.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241481r02_NOK_InterDigital.docx) | 2024-08-22 12:28 | 68,9 KB |
| [S4-241481r03.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241481r03.docx) | 2024-08-22 12:46 | 69,3 KB |

**Presenter**: Thomas Stockhammer

**Online Discussion**:

* Thomas presents r01.
* Thomas: Some comments were high level and hard to address in my revision
* Thomas: Regarding the comment from Serhan on representation of camera parameters: this is the representation format and this is not about compression.
* Thomas: The compression and representation formats should be separated, SEI messages for instance are the MPEG way but the MPEG way is just one way to compress representation formats into bitstreams.
* Madhukar: What are the Extensions as mentioned in the title? It’s not clear how this is different to VOPS, i.e. stereoscopic content. It doesn’t look like an extension and this should be addressed in VOPS.
* Gilles: There is an overlap between VOPS and Beyond2D as long as stereoscopic video is considered in Beyond2D.
* Thomas: VOPS is not expected to address depth or disparity.
* Ralf: The extensions should be clearly listed, and do all representation formats need to match with one of the scenarios?
* Ralf: My comments on nausea is not blocking but a note would be good.
* Thomas: What should that note say?
* 2024/08/22, discussion of r03
* Ralf: If the content is incorrectly generated, then it may cause nausea. This is always a problem with user-generated content.
* Gilles: Can we document the remaining comments as editors notes?

**Decision**:

* 2024/08/21: Parked, update expected.
* 2024/08/22: r03 is agreed with a note to point to nausea, and inclusion of the remaining comments as editor notes.

[S4-241481](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241481.zip) is **revised** to [S4-241708](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241708.zip).

[S4-241708](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241708.zip) is **agreed.**

| [S4-241488](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241488.zip) | [FS\_Beyond2D] Available Datasets, tools, softwares for Stereoscopic Video Source Sequences | China Mobile Com. Corporation | Jiayi Xu |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_Beyond2D, 1488, 21st August 1200CEST] Available Datasets, tools, softwares for Stereoscopic Video | Teniou Gilles | Mon, 19 Aug 2024 07:41:41 +0000 |
| --- | --- | --- |
| [[FS\_Beyond2D, 1488, 21st August 1200CEST] Available Datasets, tools, softwares for Stereoscopic Video](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;1db2d39f.2408C&S=) | Ralf Schaefer | Tue, 20 Aug 2024 13:03:52 +0000 |
| [[FS\_Beyond2D, 1488, 21st August 1200CEST] Available Datasets, tools, softwares for Stereoscopic Video](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;55d850f9.2408C&S=) | Thomas Stockhammer | Wed, 21 Aug 2024 08:25:09 +0000 |
| [[FS\_Beyond2D, 1488, 21st August 1200CEST] Available Datasets, tools, softwares for Stereoscopic Video](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;17a025ba.2408C&S=) | Xu Jiayi | Wed, 21 Aug 2024 17:34:58 +0800 |
| [[FS\_Beyond2D, 1488, 21st August 1200CEST] Available Datasets, tools, softwares for Stereoscopic Video](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;7d7090d2.2408C&S=) | Teniou Gilles | Wed, 21 Aug 2024 11:32:51 +0000 |
| [[FS\_Beyond2D, 1488, 21st August 1200CEST] Available Datasets, tools, softwares for Stereoscopic Video](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;e30a0278.2408C&S=) | Xu Jiayi | Wed, 21 Aug 2024 20:07:10 +0800 |

**Revisions**:

| [S4-241488\_[FS\_Beyond2D] Available Datasets, tools, softwares for Stereoscopic Video Test Sequences IDCC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241488_%5BFS_Beyond2D%5D%20Available%20Datasets%2C%20tools%2C%20softwares%20for%20Stereoscopic%20Video%20Test%20Sequences%20IDCC.docx) | 8/20/2024 13:01 | 1263 KB |
| --- | --- | --- |
| [S4-241488\_[FS\_Beyond2D] Available Datasets, tools, softwares for Stereoscopic Video Test Sequences\_r1.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241488_%5BFS_Beyond2D%5D%20Available%20Datasets%2C%20tools%2C%20softwares%20for%20Stereoscopic%20Video%20Test%20Sequences_r1.docx) | 8/21/2024 9:34 | 1261,2 KB |

**Presenter**: Jiayi Xu

**Online Discussion**:

* Gilles presents r1.
* Jiayi summarizes the comments and the changes made in r1.
* Ralf: Do we need to take into account that this is UE-to-UE content? Professionally generated content would not fit well in this use case. Things like 8K and HDR that is in there now would not be feasible.
* Gilles: UE is user equipment and not necessarily a mobile phone. We may be more flexible in what constitutes UE-to-UE, but it is important to be explicit on what devices are to be supported.
* Jiayi: It is possible to have AI-generated content on a mobile device or with a cloud service. She is not sure that the high quality that Thomas has mentioned is needed.

**Decision**:

* 2024-08-21: r01 is Agreed (PD), to be revised.

[S4-241488](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241488.zip) is **revised** to [S4-241674](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241674.zip).

S4-241674 is **agreed.**

| [S4-241491](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241491.zip) | [FS\_Beyond2D] TR 26.956 v0.0.4 | China Mobile Com. Corporation | Jiayi Xu |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_Beyond2D, 1491, 21st August 1200CEST] Draft TR 26.956 | Teniou Gilles | Mon, 19 Aug 2024 07:38:49 +0000 |
| --- | --- | --- |
| [[FS\_Beyond2D, 1491, 21st August 1200CEST] Draft TR 26.956](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;eb579f6c.2408C&S=) | Thomas Stockhammer | Wed, 21 Aug 2024 06:31:29 +0000 |
| [[FS\_Beyond2D, 1491, 21st August 1200CEST] Draft TR 26.956](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;83dc1d96.2408C&S=) | Teniou Gilles | Wed, 21 Aug 2024 11:45:52 +0000 |

**Revisions**: none

**Online Discussion**: none

**Decision**:

* No comment was received.
* The document **S4-241491** is **agreed** as basis for further work.

[S4-241491](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241491.zip) is **agreed**.

| [S4-241492](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241492.zip) | [FS\_Beyond2D] Permanent Document v0.0.3 | China Mobile Com. Corporation | Jiayi Xu |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_Beyond2D, 1492, 21st August 1200CEST] Permanent Document | Teniou Gilles | Mon, 19 Aug 2024 07:39:44 +0000 |
| --- | --- | --- |
| [[FS\_Beyond2D, 1492, 21st August 1200CEST] Permanent Document](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;37fb6f13.2408C&S=) | Teniou Gilles | Wed, 21 Aug 2024 11:53:12 +0000 |

**Revisions**: none

**Online Discussion**: none

**Decision**:

* No comment was received,
* The document **S4-241492** is **agreed** as basis for further work.

[S4-241492](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241492.zip) is **agreed**.

| [S4-241493](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241493.zip) | [FS\_Beyond2D] Work Plan V3.0 | China Mobile Com. Corporation | Jiayi Xu |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_Beyond2D, 1493, 21st August 1200CEST] B2D workplan | Teniou Gilles | Mon, 19 Aug 2024 11:09:08 +0000 |
| --- | --- | --- |
| [[FS\_Beyond2D, 1493, 21st August 1200CEST] B2D workplan](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;51020c94.2408C&S=) | Serhan Guel (Nokia) | Tue, 20 Aug 2024 18:01:47 +0000 |
| [[FS\_Beyond2D, 1493, 21st August 1200CEST] B2D workplan](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;e44e3654.2408D&S=) | Xu Jiayi | Thu, 22 Aug 2024 16:08:00 +0800 |
| [[FS\_Beyond2D, 1493, 21st August 1200CEST] B2D workplan](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;a804f26a.2408D&S=) | Teniou Gilles | Thu, 22 Aug 2024 10:19:11 +0000 |
| [[FS\_Beyond2D, 1493, 21st August 1200CEST] B2D workplan](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;d7ca4970.2408D&S=) | Xu Jiayi | Thu, 22 Aug 2024 18:38:25 +0800 |

**Revisions**:

| [S4-241493\_[FS\_Beyond2D]WorkplanV0.3\_r1.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241493_%5BFS_Beyond2D%5DWorkplanV0.3_r1.docx) | 2024-08-22 08:06 | 251,2 KB |
| --- | --- | --- |
| [S4-241493\_[FS\_Beyond2D]WorkplanV0.3\_r2.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241493_%5BFS_Beyond2D%5DWorkplanV0.3_r2.docx) | 2024-08-22 10:36 | 248,2 KB |

**Presenter**: Jiayi Xu

**Online Discussion**:

* Revision r2 was shortly presented.
* There are no concerns.

**Decision**:

2024/08/22: r2 is agreed.

[S4-241493](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241493.zip) is **revised** to [S4-241712](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241712.zip).

S4-241712 is **agreed (gotoplen15.8)**.

| [S4-241494](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241494.zip) | [FS\_Beyond2D] Quality examples of the point cloud representation format for streaming single asset scenario | InterDigital Communications | Ralf Schaefer |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_Beyond2D, 1494, 21st August 1200CEST] Quality examples of the point cloud rep-format | Teniou Gilles | Mon, 19 Aug 2024 07:42:02 +0000 |
| --- | --- | --- |
| [[FS\_Beyond2D, 1494, 21st August 1200CEST] Quality examples of the point cloud rep-format](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;228b632f.2408C&S=) | Xu Jiayi | Tue, 20 Aug 2024 22:22:54 +0800 |
| [[FS\_Beyond2D, 1494, 21st August 1200CEST] Quality examples of the point cloud rep-format](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;8357f331.2408C&S=) | Ralf Schaefer | Tue, 20 Aug 2024 15:30:25 +0000 |
| [[FS\_Beyond2D, 1494, 21st August 1200CEST] Quality examples of the point cloud rep-format](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;70406f33.2408C&S=) | Thomas Stockhammer | Wed, 21 Aug 2024 07:47:00 +0000 |
| [[FS\_Beyond2D, 1494, 21st August 1200CEST] Quality examples of the point cloud rep-format](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;4f36832b.2408C&S=) | Ralf Schaefer | Wed, 21 Aug 2024 09:00:56 +0000 |

**Revisions**:

| [S4-241494 [FS\_Beyond2D] Quality examples point cloud format - InterDigital.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241494%20%5BFS_Beyond2D%5D%20Quality%20examples%20point%20cloud%20format%20-%20InterDigital.docx) | 8/21/2024 8:45 | 27336,4 KB |
| --- | --- | --- |
| [S4-241494 [FS\_Beyond2D] Quality examples point cloud format - InterDigital-rev01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241494%20%5BFS_Beyond2D%5D%20Quality%20examples%20point%20cloud%20format%20-%20InterDigital-rev01.docx) | 8/21/2024 12:31 | 27336,4 KB |

**Presenter**: Ralf Schaefer

**Online Discussion**:

* Gilles summarizes the discussion.
* Ralf presents the changes.

**Decision**: agreed for PD

[S4-241494](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241494.zip) is **agreed**.

| [S4-241518](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241518.zip) | [FS\_Beyond2D] Representation Format - Neural Radiance Fields (NeRF) | China Mobile Com. Corporation | Jiayi Xu |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_Beyond2D, 1518, 21st August 1200CEST] Rep-formats - Neural Radiance Fields (NeRF) | Teniou Gilles | Mon, 19 Aug 2024 07:40:49 +0000 |
| --- | --- | --- |
| [FS\_Beyond2D, 1518, 21st August 1200CEST] Rep-formats - Neural Radiance Fields (NeRF) | Gaëlle Martin-Cocher | Mon, 19 Aug 2024 19:24:31 +0000 |
| [FS\_Beyond2D, 1518, 21st August 1200CEST] Rep-formats - Neural Radiance Fields (NeRF) | Xu Jiayi | Tue, 20 Aug 2024 18:26:44 +0800 |
| [[FS\_Beyond2D, 1518, 21st August 1200CEST] Rep-formats - Neural Radiance Fields (NeRF)](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;d545f0b5.2408C&S=) | Serhan Guel (Nokia) | Tue, 20 Aug 2024 19:42:59 +0000 |
| [[FS\_Beyond2D, 1518, 21st August 1200CEST] Rep-formats - Neural Radiance Fields (NeRF)](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;b8e6917f.2408C&S=) | Gaëlle Martin-Cocher | Tue, 20 Aug 2024 21:57:16 +0000 |
| [[FS\_Beyond2D, 1518, 21st August 1200CEST] Rep-formats - Neural Radiance Fields (NeRF)](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;e9bad3a3.2408C&S=) | Xu Jiayi | Wed, 21 Aug 2024 12:40:26 +0800 |
| [[FS\_Beyond2D, 1518, 21st August 1200CEST] Rep-formats - Neural Radiance Fields (NeRF)](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;45313e38.2408C&S=) | Xu Jiayi | Wed, 21 Aug 2024 12:41:06 +0800 |
| [[FS\_Beyond2D, 1518, 21st August 1200CEST] Rep-formats - Neural Radiance Fields (NeRF)](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;95fee237.2408C&S=) | Thomas Stockhammer | Wed, 21 Aug 2024 06:26:06 +0000 |
| [[FS\_Beyond2D, 1518, 21st August 1200CEST] Rep-formats - Neural Radiance Fields (NeRF)](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;94cd7e72.2408C&S=) | Gaëlle Martin-Cocher | Wed, 21 Aug 2024 13:02:20 +0000 |
| [[FS\_Beyond2D, 1518, 21st August 1200CEST] Rep-formats -NeuralRadiance Fields (NeRF)](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;639e8372.2408D&S=) | Xu Jiayi | Thu, 22 Aug 2024 14:57:38 +0800 |
| [[FS\_Beyond2D, 1518, 21st August 1200CEST] Rep-formats -NeuralRadiance Fields (NeRF)](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;ed78b7aa.2408D&S=) | Thomas Stockhammer | Thu, 22 Aug 2024 08:36:20 +0000 |
| [[FS\_Beyond2D, 1518, 21st August 1200CEST] Rep-formats-NeuralRadiance Fields (NeRF)](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;df9cb60f.2408D&S=) | Xu Jiayi | Thu, 22 Aug 2024 17:24:45 +0800 |
| [[FS\_Beyond2D, 1518, 21st August 1200CEST] Rep-formats-NeuralRadiance Fields (NeRF)](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;d12730a7.2408D&S=) | Serhan Guel (Nokia) | Thu, 22 Aug 2024 10:05:15 +0000 |
| [[FS\_Beyond2D, 1518, 21st August 1200CEST] Rep-formats-NeuralRadiance Fields (NeRF)](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;a2907842.2408D&S=) | Thomas Stockhammer | Thu, 22 Aug 2024 10:37:23 +0000 |
| [[FS\_Beyond2D, 1518, 21st August 1200CEST] Rep-formats-NeuralRadiance Fields (NeRF)](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;5dff9e13.2408D&S=) | Xu Jiayi | Thu, 22 Aug 2024 18:58:35 +0800 |
| [[FS\_Beyond2D, 1518, 21st August 1200CEST] Rep-formats-NeuralRadiance Fields (NeRF)](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;80790445.2408D&S=) | Serhan Guel (Nokia) | Thu, 22 Aug 2024 11:02:33 +0000 |

**Revisions**:

| [S4-241518-pCR26956-NeRF\_r1-IDC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241518-pCR26956-NeRF_r1-IDC.docx) | 2024-08-21 13:01 | 142,8 KB |
| --- | --- | --- |
| [S4-241518-pCR26956-NeRF\_r1.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241518-pCR26956-NeRF_r1.docx) | 2024-08-21 04:08 | 144 KB |
| [S4-241518-pCR26956-NeRF\_r2.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241518-pCR26956-NeRF_r2.docx) | 2024-08-22 06:56 | 141,6 KB |
| [S4-241518-pCR26956-NeRF\_r3.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241518-pCR26956-NeRF_r3.docx) | 2024-08-22 09:23 | 142,8 KB |
| [S4-241518-pCR26956-NeRF\_r3\_NOK.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241518-pCR26956-NeRF_r3_NOK.docx) | 2024-08-22 10:04 | 147,6 KB |
| [S4-241518-pCR26956-NeRF\_r4.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241518-pCR26956-NeRF_r4.docx) | 2024-08-22 10:53 | 142,7 KB |
| [S4-241518r02\_QCOM.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241518r02_QCOM.docx) | 2024-08-22 08:36 | 144,5 KB |

**Presenter**: Jiayi Xu

**Online Discussion**:

* Gilles summarized the discussion.
* r1-IDC is presented.
* Jiayi: Not all comments could be implemented due to time constraints.
* Thomas: About NeRF, the interest in the industry seems to be fading out. Documenting is OK but Gaussian Splat seems to be more promising. That being said, NeRF and Gaussian Splat should be evaluated against the same use cases to understand/validate this decreasing interest for NeRF.
* Gilles: Are you sure that we can use the figures?
* Jiayi: The figure from the paper needs a reference.
* 2024/08/22: Discussion of r4.
* Serhan: Does not agree with the text that NeRF is having a declining interest.
* Jiayi: There is a shift in academic interest.
* Thomas: Jiayi has implemented the agreement of the previous session.
* Gilles: Is there agreement if the text on NeRF declining interest in 4.3.X.1.1 is removed?
* Thomas: Asks for an editor's note instead.
* Jiayi: Proposes to put the sentence in brackets and add an editor’s note that the sentence is checked at the end of the study.
* Serhan: fine.

**Decision**:

* 2024/08/21: Parked. An update is expected.
* 2024/08/22: Revision r4 is agreed with the online edit in 4.3.X.1.1

[S4-241518](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241518.zip) is **revised** to [S4-241709](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241709.zip).

S4-241709 is **agreed**.

| [S4-241519](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241519.zip) | [FS\_Beyond2D] Representation Format - 3D Gaussian Splatting (3DGS) | China Mobile Com. Corporation | Jiayi Xu |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_Beyond2D, 1519, 21st August 1200CEST] Rep-formats - 3D Gaussian Splatting (3DGS) | Teniou Gilles | Mon, 19 Aug 2024 07:41:03 +0000 |
| --- | --- | --- |
| [FS\_Beyond2D, 1519, 21st August 1200CEST] Rep-formats - 3D Gaussian Splatting (3DGS) | Gaëlle Martin-Cocher | Mon, 19 Aug 2024 19:26:11 +0000 |
| [FS\_Beyond2D, 1519, 21st August 1200CEST] Rep-formats - 3D Gaussian Splatting (3DGS) | Xu Jiayi | Tue, 20 Aug 2024 18:40:23 +0800 |
| [[FS\_Beyond2D, 1519, 21st August 1200CEST] Rep-formats - 3D Gaussian Splatting (3DGS)](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;2fe5f26b.2408C&S=) | Serhan Guel (Nokia) | Tue, 20 Aug 2024 19:48:07 +0000 |
| [[FS\_Beyond2D, 1519, 21st August 1200CEST] Rep-formats - 3D Gaussian Splatting (3DGS)](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;38ccd451.2408C&S=) | Gaëlle Martin-Cocher | Tue, 20 Aug 2024 21:41:20 +0000 |
| [[FS\_Beyond2D, 1519, 21st August 1200CEST] Rep-formats - 3D Gaussian Splatting (3DGS)](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;9b8a10a5.2408C&S=) | Xu Jiayi | Wed, 21 Aug 2024 12:35:13 +0800 |
| [[FS\_Beyond2D, 1519, 21st August 1200CEST] Rep-formats - 3D Gaussian Splatting (3DGS)](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;6e34cf4d.2408C&S=) | Xu Jiayi | Wed, 21 Aug 2024 12:36:01 +0800 |
| [[FS\_Beyond2D, 1519, 21st August 1200CEST] Rep-formats - 3D Gaussian Splatting (3DGS)](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;2ae83892.2408C&S=) | Thomas Stockhammer | Wed, 21 Aug 2024 05:39:13 +0000 |

**Revisions**:

| [S4-241519-pCR26956-3DGS\_r1.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241519-pCR26956-3DGS_r1.docx) | 8/21/2024 4:09 | 1212,6 KB |
| --- | --- | --- |
| [S4-241519-pCR26956-3DGS-IDC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241519-pCR26956-3DGS-IDC.docx) | 8/20/2024 21:39 | 1210,4 KB |

**Presenter**: Jiayi Xu

**Online Discussion**:

* Gilles summarized the discussion.
* r1 is presented.
* Jiayi: Still some comments to be addressed later. Nokia and Interdigital comments are addressed.
* Thomas: Good to document 3DGS. But too early to conceive an interop system with this format in release 19.
* Gaëlle: The editors note on Future Formats (4.3.X) may need to be kept.
* Gaelle: Note to clarify that they are not for release 19 normative work is good maybe for introduction text even.

**Decision**:

* 2024/08/21: Parked.
* 2024/08/22: The source asks the document to be noted, and a revision may be expected at an upcoming telco.

[S4-241519](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241519.zip) is **noted**.

| [S4-241520](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241520.zip) | [FS\_Beyond2D] Quality aspects of stereoscopic video content | China Mobile Com. Corporation | Jiayi Xu |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_Beyond2D, 1520, 21st August 1200CEST] Quality aspects of stereoscopic video content | Teniou Gilles | Mon, 19 Aug 2024 07:42:21 +0000 |
| --- | --- | --- |
| [[FS\_Beyond2D, 1520, 21st August 1200CEST] Quality aspects of stereoscopic video content](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;888f6257.2408C&S=) | Ralf Schaefer | Tue, 20 Aug 2024 14:01:17 +0000 |
| [[FS\_Beyond2D, 1520, 21st August 1200CEST] Quality aspects of stereoscopic video content](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;b52e19da.2408C&S=) | Serhan Guel (Nokia) | Tue, 20 Aug 2024 19:15:40 +0000 |
| [[FS\_Beyond2D, 1520, 21st August 1200CEST] Quality aspects of stereoscopic video content](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;e8d1458f.2408C&S=) | Thomas Stockhammer | Wed, 21 Aug 2024 07:58:19 +0000 |
| [[FS\_Beyond2D, 1520, 21st August 1200CEST] Quality aspects of stereoscopic video content](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;3ecef3d1.2408C&S=) | Xu Jiayi | Wed, 21 Aug 2024 20:03:13 +0800 |
| [[FS\_Beyond2D, 1520, 21st August 1200CEST] Quality aspects of stereoscopic video content](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;63978ee3.2408C&S=) | Teniou Gilles | Wed, 21 Aug 2024 20:55:55 +0000 |

**Revisions**:

| [S4-241520\_[FS\_Beyond2D] Quality aspects of stereoscopic video content InterDigital.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241520_%5BFS_Beyond2D%5D%20Quality%20aspects%20of%20stereoscopic%20video%20content%20InterDigital.docx) | 8/20/2024 13:58 | 394,6 KB |
| --- | --- | --- |
| [S4-241520\_InterDigital\_NOK.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241520_InterDigital_NOK.docx) | 8/20/2024 19:14 | 395,9 KB |
| [S4-241520\_r1.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241520_r1.docx) | 8/21/2024 12:01 | 476,5 KB |

**Presenter**: Jiayi Xu

**Online Discussion**:

* Gilles to trigger another email agreement.

**Decision**:

* 2024/08/21: New email agreement triggered.
* 2024/08/22: r1 is agreed for the PD.

[S4-241520](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241520.zip) is **revised** to [S4-241711](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241711.zip).

S4-241711 is **agreed**.

| [S4-241604](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241604.zip) | On representation format – Dynamic Point Cloud representation format | InterDigital Communications | Ralf Schaefer |
| --- | --- | --- | --- |

**E-mail Discussion**: see 1620

**Revisions**:

| [S4-241604 [FS\_Beyond2D] On Representation Formats - Dynamic Point Clouds\_rufael.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241604%20%5BFS_Beyond2D%5D%20On%20Representation%20Formats%20-%20Dynamic%20Point%20Clouds_rufael.docx) | 8/15/2024 14:26 | 39,5 KB |
| --- | --- | --- |
| [S4-241604\_QCOM InterDigital.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241604_QCOM%20InterDigital.docx) | 8/20/2024 11:03 | 53,3 KB |
| [S4-241604\_QCOM.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241604_QCOM.docx) | 8/19/2024 12:50 | 45,8 KB |
| [S4-241604\_XM InterDigital.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241604_XM%20InterDigital.docx) | 8/20/2024 17:29 | 49,3 KB |
| [S4-241604\_XM.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241604_XM.docx) | 8/20/2024 12:28 | 47 KB |
| [S4-241604\_QCOM\_XM\_InterDigital.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241604_QCOM_XM_InterDigital.docx) | 8/21/2024 11:45 | 57,7 KB |
| [S4-241604-rev01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241604-rev01.docx) | 8/21/2024 12:17 | 57,7 KB |

**Presenter**: Ralf Schaefer

**Online Discussion**:

* Gilles summarized the discussion.
* rev1 is presented.
* Ralf: Updates based on other companies' reviews, input is meant to address the template we agreed on at a previous meeting. There was a proposal to use dense point cloud. But dense is not clearly defined in terms of point density so I choose not to use the term.
* Mary-Luc: Agree hard to define what dense is. But not all compression can tackle sparse and dense point clouds. We need to define a way to identify what kinds of point clouds we target in this scenario.
* Thomas: VFA clearly shows mesh in the public diagram but ok maybe some private knowledge is different. Still internal concerns about point cloud as a distribution format, we should document the limitations of this representation format.
* 1620 will be the first source of revision work and some content may be replicated/moved to the PD instead of working on both PD and TR during this meeting.

**Decision**:

* 2024/08/21: Parked.
* 2024/08/22: Noted because 1620 is moving forward.

[S4-241604](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241604.zip) is **noted**.

| [S4-241618](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241618.zip) | Streaming of Beyond 2D Produced VoD Content – Use Case “Volumetric Video with single asset” | InterDigital Communications | Ralf Schaefer |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_Beyond2D, 1618, 21st August 1200CEST] Streaming of B2D Produced VoD Content | Teniou Gilles | Mon, 19 Aug 2024 07:40:08 +0000 |
| --- | --- | --- |
| [[FS\_Beyond2D, 1618, 21st August 1200CEST] Streaming of B2D Produced VoD Content](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;9190862c.2408C&S=) | Xu Jiayi | Tue, 20 Aug 2024 21:33:28 +0800 |
| [[FS\_Beyond2D, 1618, 21st August 1200CEST] Streaming of B2D Produced VoD Content](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;f9d2b825.2408C&S=) | Ralf Schaefer | Tue, 20 Aug 2024 14:30:08 +0000 |
| [[FS\_Beyond2D, 1618, 21st August 1200CEST] Streaming of B2D Produced VoD Content](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;7bef8d70.2408C&S=) | Xu Jiayi | Wed, 21 Aug 2024 00:14:51 +0800 |
| [[FS\_Beyond2D, 1618, 21st August 1200CEST] Streaming of B2D Produced VoD Content](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;36ca24d5.2408C&S=) | Xu Jiayi | Wed, 21 Aug 2024 00:19:03 +0800 |
| [[FS\_Beyond2D, 1618, 21st August 1200CEST] Streaming of B2D Produced VoD Content](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;82907bc4.2408C&S=) | Thomas Stockhammer | Wed, 21 Aug 2024 08:32:35 +0000 |

**Revisions**: none

**Presenter**: Ralf Schaefer

**Online Discussion**:

* Gilles summarizes the discussion.
* Ralf: Information in PD is good. We should take the next step now.
* Jiayi: We should prioritize the scenarios based on the market relevance as mentioned in the objectives. Media format is also important to make the prioritization.
* Ralf: I didn’t mean the media representation/format is irrelevant but we could move some of the information already in the TR.
* Jiayi: Since volumetric video is still technically unclear, we would need a clear format to reference and to use to move this ahead.
* Thomas: We typically couple a representation and a format together to understand the scenario. Introducing this decoupling is new and tricky to implement right now in the scenario development process.
* Ralf: We think this scenario can be considered independently to the representation format and be moved further to make some progress.
* Madhukar: Point clouds are well understood. We could move the use case part of this scenario ahead as Ralf mentioned.
* Mary-Luc: Grouping volumetric video and point clouds under the same scenario is confusing and probably not the right direction.
* Ralf: We need to be clear about the process to move forward between use case, representation format and compression.

**Decision**: noted

[S4-241618](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241618.zip) is **noted**.

| [S4-241620](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241620.zip) | On representation format – Dynamic Point Cloud representation format | InterDigital Communications | Ralf Schaefer |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_Beyond2D, 1604&1620, 21st August 1200CEST] Rep-formats - Dynamic Point Cloud | Teniou Gilles | Mon, 19 Aug 2024 07:41:28 +0000 |
| --- | --- | --- |
| [FS\_Beyond2D, 1604&1620, 21st August 1200CEST] Rep-formats - Dynamic Point Cloud | Thomas Stockhammer | Mon, 19 Aug 2024 16:04:59 +0000 |
| [[FS\_Beyond2D, 1604&1620, 21st August 1200CEST] Rep-formats - Dynamic Point Cloud](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;725720c3.2408C&S=) | Ralf Schaefer | Tue, 20 Aug 2024 11:11:08 +0000 |
| [[FS\_Beyond2D, 1604&1620, 21st August 1200CEST] Rep-formats - Dynamic Point Cloud](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;4bb32692.2408C&S=) | Champel MaryLuc | Tue, 20 Aug 2024 12:42:18 +0000 |
| [[FS\_Beyond2D, 1604&1620, 21st August 1200CEST] Rep-formats - Dynamic Point Cloud](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;a8dcf45a.2408C&S=) | Rajan Laxman Joshi | Tue, 20 Aug 2024 16:04:36 +0000 |
| [[FS\_Beyond2D, 1604&1620, 21st August 1200CEST] Rep-formats - Dynamic Point Cloud](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;e0b17840.2408C&S=) | Ralf Schaefer | Tue, 20 Aug 2024 17:32:44 +0000 |
| [[FS\_Beyond2D, 1604&1620, 21st August 1200CEST] Rep-formats - Dynamic Point Cloud](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;bda6c557.2408C&S=) | Teniou Gilles | Wed, 21 Aug 2024 11:29:39 +0000 |
| [[FS\_Beyond2D, 1604&1620, 21st August 1200CEST] Rep-formats - Dynamic Point Cloud](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;1a94cc10.2408C&S=) | Ralf Schaefer | Wed, 21 Aug 2024 11:48:59 +0000 |
| [[FS\_Beyond2D, 1604&1620, 21st August 1200CEST] Rep-formats - Dynamic Point Cloud](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;6aca2890.2408C&S=) | Thomas Stockhammer | Wed, 21 Aug 2024 12:08:27 +0000 |
| [[FS\_Beyond2D, 1604&1620, 21st August 1200CEST] Rep-formats - Dynamic Point Cloud](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;b60afb18.2408C&S=) | Ralf Schaefer | Wed, 21 Aug 2024 12:19:58 +0000 |
| [[FS\_Beyond2D, 1604&1620, 21st August 1200CEST] Rep-formats - Dynamic Point Cloud](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;ca76e527.2408D&S=) | Thomas Stockhammer | Thu, 22 Aug 2024 09:16:36 +0000 |
| [[FS\_Beyond2D, 1604&1620, 21st August 1200CEST] Rep-formats - Dynamic Point Cloud](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;43354198.2408D&S=) | Ralf Schaefer | Thu, 22 Aug 2024 10:05:24 +0000 |
| [[FS\_Beyond2D, 1604&1620, 21st August 1200CEST] Rep-formats - Dynamic Point Cloud](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;fa48d001.2408D&S=) | Thomas Stockhammer | Thu, 22 Aug 2024 10:19:27 +0000 |
| [[FS\_Beyond2D, 1604&1620, 21st August 1200CEST] Rep-formats - Dynamic Point Cloud](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;37a0de5e.2408D&S=) | Ralf Schaefer | Thu, 22 Aug 2024 11:54:43 +0000 |

**Revisions**:

| [S4-241620-rev01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241620-rev01.docx) | 2024-08-21 12:31 | 246,4 KB |
| --- | --- | --- |
| [S4-241620-rev02.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241620-rev02.docx) | 2024-08-22 09:28 | 250,4 KB |
| [S4-241620-rev03.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241620-rev03.docx) | 2024-08-22 11:51 | 251,1 KB |
| [S4-241620\_QCOM InterDigital.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241620_QCOM%20InterDigital.docx) | 2024-08-20 11:05 | 246,4 KB |
| [S4-241620\_QCOM.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241620_QCOM.docx) | 2024-08-19 14:55 | 239,5 KB |

**Presenter**: Ralf Schaefer

**Online Discussion**:

* Gilles displays rev01.
* Ralf presents the changes.
* 1620 will be the first source of revision work and some content may be replicated/moved to the PD instead of working on both PD and TR during this meeting.
* 2024/08/22: discussion of rev03.
* Ralf summarizes the changes.
* Thomas: The math that is added relates to the distance to the display, and not the distance to the object.
* Ralf: If you would watch the point cloud at that distance, then the resolution would be transparent.
* Thomas: Let’s put a quick note that the equation also holds for this purpose.
* Ralf: You should not use the distance to the display, because that depends on the display that is used.
* Gilles: Validation of the equation for the number of points is to be done.

**Decision**:

* 2024/08/21: Parked.
* 2024/08/22: rev03 is agreed

[S4-241620](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241620.zip) is **revised** to [S4-241710](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241710.zip).

[S4-241710](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241710.zip) is **agreed**.

## 9.10 FS\_ARSpatial (Study on Spatial Computing for AR Services)

*WID:* [*SP-240927*](https://www.3gpp.org/ftp/TSG_SA/TSG_SA/TSGS_104_Shanghai_2024-06/Docs/SP-240927.zip) *New SID on Feasibility Study on Spatial Computing for AR Services*

| [S4-241605](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241605.zip) | [FS\_ARSpatial] Time Plan for the FS\_ARSpatial Study Item v0.0.1 | InterDigital Canada | Ahmed Hamza |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_ARSpatial, 1605, 22nd August 1200CEST] Workplan | Teniou Gilles | Mon, 19 Aug 2024 08:21:08 +0000 |
| --- | --- | --- |
| [[FS\_ARSpatial, 1605, 22nd August 1200CEST] Workplan](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;ac679d1a.2408D&S=) | Ahmed Hamza | Thu, 22 Aug 2024 06:19:36 +0000 |

**Revisions**:

| [S4-241605\_r01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241605_r01.docx) | 8/22/2024 6:17 | 42,2 KB |
| --- | --- | --- |

**Presenter**: Ahmed Hamza

**Online Discussion**:

* Ahmed summarises the changes (telco dates)

**Decision**: r1 is agreed

[S4-241605](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241605.zip) is **revised to** [**S4-241734**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241734.zip).

S4-241734 is **agreed, goes to plenary.**

| [S4-241607](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241607.zip) | [FS\_ARSpatial] TR 26.819 Skeleton v0.0.1 | InterDigital Canada | Ahmed Hamza |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_ARSpatial, 1607, 22nd August 1200CEST] Draft TR | Teniou Gilles | Mon, 19 Aug 2024 08:20:56 +0000 |
| --- | --- | --- |

**Revisions**:

| [S4-241607\_r01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241607_r01.docx) | 8/22/2024 14:09 | 113,4 KB |
| --- | --- | --- |

**Presenter**: Ahmed Hamza

**Online Discussion**: none

**Decision**:

* is agreed as basis for further work.
* A draft TR v0.1.0 will go to plenary

[S4-241607](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241607.zip) is **agreed**.

| [S4-241608](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241608.zip) | [FS\_ARSpatial] Spatial Computing Functions | InterDigital Canada | Ahmed Hamza |
| --- | --- | --- | --- |

**E-mail Discussion**:

| [FS\_ARSpatial, 1608, 22nd August 1200CEST] Spatial Computing Functions | Teniou Gilles | Mon, 19 Aug 2024 08:21:16 +0000 |
| --- | --- | --- |
| [[FS\_ARSpatial, 1608, 22nd August 1200CEST] Spatial Computing Functions](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;8e653341.2408C&S=) | Serhan Guel (Nokia) | Wed, 21 Aug 2024 09:09:13 +0000 |
| [[FS\_ARSpatial, 1608, 22nd August 1200CEST] Spatial Computing Functions](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;7bca6a1e.2408C&S=) | Ahmed Hamza | Wed, 21 Aug 2024 20:23:40 +0000 |
| [[FS\_ARSpatial, 1608, 22nd August 1200CEST] Spatial Computing Functions](https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_VIDEO;b26be0e9.2408D&S=) | Serhan Guel (Nokia) | Thu, 22 Aug 2024 13:47:09 +0000 |

**Revisions**:

| [S4-241608\_NOK.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241608_NOK.docx) | 8/21/2024 9:08 | 3196 KB |
| --- | --- | --- |
| [S4-241608\_r1.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_129-e/Inbox/Drafts/Video/S4-241608_r1.docx) | 8/21/2024 20:22 | 3922,6 KB |

**Presenter**: Ahmed Hamza

**Online Discussion**:

* Ahmed summarizes the email discussion and how they are addressed in the r1.

**Decision**:

* r1 agreed

[S4-241608](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241608.zip) is **revised to** [**S4-241759**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241759.zip).

S4-241759 is **agreed**

9.11 Other Rel-19 matters including TEI

No documents.

## 9.12 Liaisons and Liaison Responses

No documents

## 9.13 Any Other Business

### 9.14.1 Report

The report will be made available in [S4-241664](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_129-e/Docs/S4-241664.zip).

### 9.14.2 Summary from Offline Discussions

none.

### 9.14.3 Output documents

To be added.

### 9.14.4 AHG Telcos

|   | Sept. 24th | Oct. 8th | Oct. 15th | Oct. 22nd | Oct. 29th |
| --- | --- | --- | --- | --- | --- |
| FS\_AI4Media |   |  o |   |  o |   |
| VOPS |   |  o  |   |  o  |   |
| FS\_Beyond2D |   |   |   |   |   |
| FS\_AVATAR |   |   |   |   |   |
| FS\_FGS |   |   |   |   |   |
| FS\_ARSpatial |   |  o |   |   |  o |

## 9.15 Close of the session

The chairman thanked the participants. Thomas Stockhammer thanked the chairman on behalf of the delegates.

The session was closed on August 22, 2024 at 18:00 CEST.

## 9.16 Attendees

| TITLE | Family Name | Given Name | Employer Organization | Present |
| --- | --- | --- | --- | --- |
| Dr. | Abdoli | Mohsen | Xiaomi Technology Germany GmbH |  |
| Mr. | Agarwal | Deepak | CEWiT |  |
| Dr. | Ahsan | Saba | Nokia Corporation |  |
| Dr. | Alexiou | Evangelos | Beijing Xiaomi Mobile Software |  |
| Mr. | Aracena | Mauricio | Ericsson LM |  |
| Mr. | ARAI | KENJIRO | NTT |  |
| Dr. | Awoniyi-Oteri | Olufunmilola | QUALCOMM Europe Inc. - Italy |  |
| Mr. | Bae | Jaehyeon | Samsung Electronics Co., Ltd |  |
| Mr. | Baek | Youngkyo | Samsung R&D Institute UK |  |
| Dr. | Biatek | Thibaud | Nokia France |  |
| Dr. | Bouazizi | Imed | Qualcomm Incorporated |  |
| Dr. | Bradbury | Richard | BBC |  |
| Mrs. | Brekalo | Andrijana | ETSI |  |
| Dr. | Bruhn | Stefan | Dolby Sweden AB |  |
| Dr. | Budagavi | Madhukar | Samsung Research America |  |
| Mr. | Burman | Bo | Ericsson LM |  |
| Dr. | Cetinkaya | Egemen | Verizon UK Ltd |  |
| Ms. | CHAKRABARTI | SAMITA | Verizon UK Ltd |  |
| Mr. | Champel | Mary-Luc | Beijing Xiaomi Mobile Software |  |
| Mr. | Chen | Ben | BJTU |  |
| Mr. | Chen | Jingran | OPPO |  |
| Dr. | Chen | Lulin | MediaTek Inc. |  |
| Mr. | Cheng | Hong | Qualcomm Incorporated |  |
| Dr. | Chiba | Tsunehiko | VIAVI Solutions |  |
| Miss | chong | vivian | VIVO TECH GmbH |  |
| Dr. | Cloud | Jason | Dolby Laboratories Inc. |  |
| Mr. | Coban | Muhammed | Qualcomm Technologies Int |  |
| Dr. | Curcio | Igor | Nokia Corporation |  |
| Mr. | Dawkins | Spencer | Tencent |  |
| Mr. | Ding | Shilin | Qualcomm Incorporated |  |
| Mr. | Doehla | Stefan | Fraunhofer IIS |  |
| Mr. | Dong | Wang | vivo Mobile Communication Co., |  |
| Dr. | Ehara | Hiroyuki | Panasonic Holdings Corporation |  |
| Ms. | Eitoku | Haruka | NTT corporation |  |
| Dr. | Escott | Adrian | Qualcomm Germany |  |
| Dr. | Featherstone | Walter | Apple France |  |
| Mr. | Flynn | Kevin | ETSI |  |
| Mr. | Fontaine | Loic | InterDigital France R&D, SAS |  |
| Ing. | Fotopoulou | Eleni | Fraunhofer IIS |  |
| Mr. | Gabin | Frederic | Dolby France SAS |  |
| Mrs. | Gao | Fei | China Mobile Com. Corporation |  |
| Mr. | Gao | Shuai | China Unicom |  |
| Ms. | Gao | Shuo | Beijing Xiaomi Mobile Software |  |
| Mr. | Gao | Yuan | Huawei Technologies France |  |
| Mr. | Gauntlett | Simon | Dolby Germany GmbH |  |
| Dr. | Ghaznavi Youvalari | Ramin | Beijing Xiaomi Mobile Software |  |
| Mr. | Gibellino | Diego | TELECOM ITALIA S.p.A. |  |
| Mrs. | Godoy | Gabriela | SDI Squared |  |
| Mr. | Gu | Xiaojun | HUAWEI TECHNOLOGIES Co. Ltd. |  |
| Mr. | Gudumasu | Srinivas | InterDigital Communications |  |
| Mrs. | Guede | Celine | InterDigital France R&D, SAS |  |
| Dr. | GUILLOTEL | Philippe | InterDigital France R&D, SAS |  |
| Mr. | Gül | Serhan | Nokia Germany |  |
| Ms. | Guo | Ivy | Apple Computer Trading Co. Ltd |  |
| Mr. | Gupta | Vivek | Apple Inc |  |
| Dr. | Hamza | Ahmed | InterDigital Canada | Yes |
| Dr. | Harada | Noboru | NTT |  |
| Dr. | He | Xuan (Shane) | Nokia Germany |  |
| Dr. | Holub | Jan | Mesaqin.com s.r.o (Ltd.) |  |
| Mr. | Hong | Wei | Beijing Xiaomi Electronics |  |
| Mr. | Howells | Elfed | Huawei Technologies R&D UK |  |
| Dr. | Hu | James | AT&T GNS Belgium SPRL |  |
| Mr. | Hu | Li | vivo Mobile Communication Co., |  |
| Mr. | Huang | Chuangzeng | Bytedance |  |
| Mr. | Hynonen | Olli | Ericsson LM |  |
| Dr. | Illahi | Gazi Karam | Nokia Corporation |  |
| Mr. | Inoue | Yoshihiro | NTT |  |
| Mr. | Iordache | Marius | Orange |  |
| Mr. | Jansson Toftgård | Tomas | Ericsson LM |  |
| Dr. | Jelinek | Milan | VoiceAge Corporation |  |
| Mr. | Jiao | Jerry | CALTTA |  |
| Dr. | Joshi | Rajan | Samsung Research America |  |
| Ms. | Kang | Yanchao | vivo Mobile Communication Co., |  |
| Miss | ke | xiaowan | vivo Mobile Communication Co., |  |
| Dr. | Kentgens | Maximilian | HEAD acoustics GmbH |  |
| Dr. | Kiani | Abbas | Futurewei |  |
| Ms. | Kim | DongYeon | Samsung R&D Institute UK |  |
| Dr. | Kim | Hongil | Qualcomm Incorporated |  |
| Dr. | Kim | Hyesung | Samsung R&D Institute UK |  |
| Mr. | Kiss | Krisztian | Apple Distribution Intl Ltd |  |
| Dr. | Kolan | Prakash | Samsung Research America |  |
| Dr. | Kolarov | Krasimir | Apple GmbH |  |
| Mr. | Kotecha | Lalit | Verizon Switzerland AG |  |
| Mr. | Kroon | Bart | Philips International B.V. |  |
| Dr. | Kumar | Virendra | Qualcomm Technologies Int |  |
| Mr. | Kwon | WooSuk | LG Electronics Inc. |  |
| Mr. | Laaksonen | Lasse | Nokia Corporation |  |
| Ms. | Lam | Maria | Verizon Switzerland AG |  |
| Dr. | LE MEUR | Olivier | InterDigital France R&D, SAS |  |
| Dr. | Lee | Brian | Dolby Germany GmbH |  |
| Dr. | Lee | Hakju Ryan | Samsung R&D Institute UK |  |
| Ms. | Lee | Hoyeon | Samsung R&D Institute UK |  |
| Mr. | Lee | Jay | Verizon UK Ltd |  |
| Mr. | Lee | Jicheol | Samsung R&D Institute UK |  |
| Dr. | Lei | Yixue | Tencent |  |
| Mr. | Lemotheux | Julien | Orange |  |
| Mr. | Leung | Nikolai | Qualcomm Germany |  |
| Dr. | Liangping | Ma | Qualcomm Austria RFFE GmbH |  |
| Mr. | Libunao | Gerardo | Verizon Spain |  |
| Mr. | Lindero | David | Ericsson Japan K.K. |  |
| Mr. | Lintervo | Arvi | Nokia Corporation |  |
| Dr. | Litwic | Lukasz | Ericsson LM |  |
| Mr. | LIU | Jianning(Carry) | Beijing Xiaomi Software Tech |  |
| Miss | Liu | Peilin | ZTE Corporation |  |
| Dr. | Lohmar | Thorsten | Ericsson LM |  |
| Dr. | Lu | Jonathan | FCC |  |
| Mr. | M Vamanan | Sudeep | Apple Benelux B.V. |  |
| Mr. | Ma | Ruitao | China Unicom |  |
| Mr. | Malenovsky | Vladimir | VoiceAge Corporation |  |
| Mr. | MAO | Yuxin | Beijing Xiaomi Mobile Software |  |
| Mrs. | Martin-Cocher | Gaelle | InterDigital, Europe, Ltd. |  |
| Dr. | Mate | Sujeet | Nokia Corporation |  |
| Dr. | Mekuria | Rufail | Huawei Technologies France |  |
| Dr. | Moon | Sang-Jun | Samsung Electronics Co., Ltd |  |
| Dr. | Moriya | Takehiro | NTT |  |
| Mr. | Multrus | Markus | Fraunhofer IIS |  |
| Dr. | Mustapha | Mona | Apple France |  |
| Mr. | NAKAMURA | Kazuo | NICT |  |
| Mr. | Negalaguli | Harish | Motorola Solutions UK Ltd. |  |
| Dr. | Ni | Hui | HUAWEI TECHNOLOGIES Co. Ltd. |  |
| Mr. | Norvell | Erik | Ericsson LM |  |
| Mr. | Onno | Stephane | InterDigital France R&D, SAS |  |
| Mr. | Pajunen | Lauros | Nokia Corporation |  |
| Dr. | Pan | Qi | HUAWEI TECHNOLOGIES Co. Ltd. |  |
| Dr. | Park | Jungshin | Samsung Electronics Co., Ltd |  |
| Mr. | Pica | Francesco | Qualcomm Incorporated |  |
| Mr. | Podborski | Dimitri | Apple Benelux B.V. - Belgium |  |
| Mr. | Potetsianakis | Emmanouil | Beijing Xiaomi Mobile Software |  |
| Mr. | quinquis | cyril | InterDigital France R&D, SAS |  |
| Mr. | Ragot | Stephane | Orange |  |
| Dr. | Ramamurthi | Vishwanath (Vishwa) | Verizon UK Ltd |  |
| Miss | Ramazanirend | Elmira | VODAFONE Group Plc |  |
| Mr. | Rämö | Anssi | Nokia Corporation |  |
| Mr. | Reimes | Jan | HEAD acoustics GmbH |  |
| Dr. | Reinhard | Erik | InterDigital France R&D, SAS |  |
| Dr. | Ridge | Justin | Nokia Corporation |  |
| Mr. | Rossbach | Ralf | Apple GmbH |  |
| Ms. | Sabater | Susana | VODAFONE Group Plc |  |
| Mr. | Saboorian | Tony | Futurewei Technologies |  |
| Mr. | Saini | Jyotirmay | IIT Kanpur |  |
| Mr. | Schaefer | Ralf | InterDigital France R&D, SAS |  |
| Mr. | Schevciw | Andre | Qualcomm Technologies Int |  |
| Mr. | Son | Jangwoo | Fraunhofer HHI |  |
| Dr. | Song | Jaeyeon | Samsung Electronics Co., Ltd |  |
| Dr. | Song | Lei | Verizon UK Ltd |  |
| Dr. | Speicher | Sebastian | Qualcomm Germany |  |
| Mr. | Srikanth | Nagisetty | Panasonic Holdings Corporation |  |
| Mr. | Steck | Chris | DTS Licensing Limited |  |
| Mr. | Stefano | Faccin | QUALCOMM Europe Inc. - Italy |  |
| Mr. | Stegenborg-Andersen | Tore | FORCE Technology |  |
| Dr. | Stockhammer | Thomas | Qualcomm Germany | yes |
| Dr. | Stoica | Razvan-Andrei | Motorola Mobility Germany GmbH |  |
| Dr. | Su | Huan-yu | HuaWei Technologies Co., Ltd |  |
| Dr. | Suh | Dongeun | Samsung R&D Institute UK |  |
| Dr. | Suh | Kyungjoo Grace | Samsung R&D Institute UK |  |
| Ms. | Sun | Xiaowen | vivo Mobile Communication Co., |  |
| Mr. | sun | zhao | HUAWEI TECHNOLOGIES Co. Ltd. |  |
| Mr. | Suzuki | Rihito | NTT |  |
| Dr. | Szczerba | Marek | Philips International B.V. |  |
| Mr. | Szucs | Paul | Sony Europe B.V. | yes |
| Mr. | Tanaka | Kazuhiko | NICT |  |
| Dr. | Tech | Gerhard | Fraunhofer HHI |  |
| Mr. | Teniou | Gilles | Tencent |  |
| Mr. | Thomas | Emmanuel | Beijing Xiaomi Mobile Software | yes |
| Dr. | tissier | alexandre | Xiaomi Technology Spain S.L |  |
| Dr. | Tourapis | Alexandros | Apple GmbH |  |
| Dr. | TRIOUX | Anthony | Xidian University |  |
| Mr. | Tyagi | Rishabh | Dolby Sweden AB |  |
| Dr. | VENMANI | Daniel Philip | Nokia France |  |
| Mr. | Wang | Bin | Beijing Xiaomi Mobile Software |  |
| Mr. | Wang | Dong | Guangdong OPPO Mobile Telecom. |  |
| Mrs. | Wang | Elliah | vivo Mobile Communication Co., |  |
| Ms. | Wang | Hui | vivo Communication Technology |  |
| Mr. | Wang | Wen | vivo Mobile Communication Co., |  |
| Mr. | wang | zhi | Beijing Xiaomi Mobile Software |  |
| Dr. | Wenger | Stephan | Tencent |  |
| Dr. | Wenger | Stephan | Tencent Cloud |  |
| Ms. | WU | Jinhua | Beijing Xiaomi Mobile Software |  |
| Mr. | Wu | Nien | Beijing Xiaomi Mobile Software |  |
| Mr. | Wu | Xiaobo | vivo Mobile Communication Co., |  |
| Mr. | Xie | Zhenhua | vivo Mobile Communication Co., |  |
| Miss | Xu | Jiayi | China Mobile Com. Corporation | Yes |
| Mr. | Ye | Xuzhou | Bytedance |  |
| Mrs. | Yin | Yujian | China Mobile Com. Corporation |  |
| Mr. | Yip | Eric | Samsung Electronics Co., Ltd |  |
| Mr. | Young | Gordon | Beijing Xiaomi Mobile Software |  |
| Mr. | Younge | Mark | T-Mobile USA Inc. |  |
| Dr. | Zhang | Amy | vivo Mobile Communication Co., |  |
| Mr. | Zhang | wei | Xidian University |  |
| Mr. | Zhang | Yizhong | vivo Mobile Communication (S) |  |
| Dr. | Zhang | Yongjing | HUAWEI TECHNOLOGIES Co. Ltd. |  |
| Dr. | Zhao | Shuai | Intel |  |
| Mr. | Zhao | Zheng | Verizon UK Ltd |  |
| Dr. | ZHENG | Jianhua | Pengcheng laboratory |  |
| Dr. | Zia | Waqar | Apple Switzerland AG |  |
| Mr. | Zisimopoulos | Haris | Qualcomm Technologies Int |  |