**Source: SA4 MBS Chairman[[1]](#footnote-1)**

**Title: 3GPP SA4 MBS SWG report during SA4#131**

**Document for: Approval**

**Agenda item: 12.2**

# Executive Summary

Executive summary given verbally when presenting the MBS SWG report at SA4#131 closing plenary

* General aspects:
	+ The MBS SWG met at SA4#131-e from Tuesday 20th to Thursday 22nd August 2024 over 5 sessions.
	+ 40 delegates attended the sessions in the room, at least 2 online
	+ 45 input Tdocs were allocated to MBS. A total of 89 Tdocs were handled. Among which 29 were either agreed and 8 were merged. Also 73 revisions are on Drafts folder that supported the discussion online and on the [MBS list](https://list.etsi.org/scripts/wa.exe?A1=ind2502C&L=3GPP_TSG_SA_WG4_MBS) during the week.
	+ 21 output Tdocs are presented to SA4 plenary.
* LSs received during the meeting
	+ The reply LSs from SA2 and RAN2 on Reply LS on Time Synchronization for MBS was noted
* Maintenance
	+ Agreed CRs to TS 26.510 and TS 26.512
		- [5GMS\_Pro\_Ph2] Explicit deactivation of Dynamic Policy in client API
		- [5GMS\_Pro\_Ph2] Editorial correction
		- [5GMS3, TEI18] Align OpenAPI YAML with normative description
	+ Agreed CRs to TS 26.517
		- [5MBP3, TEI18] Tighten data type of service-class query parameter
	+ Agreed CRs to TS 26.346
		- [PMA-MBS\_Ext, TEI17] XML corrections
		- [PMA-MBS\_Ext, TEI18] XML corrections
	+ Agreed CRs to TS 26.143
		- Correction to xHE-AAC codecs parameter, AMR and EVS capability and media type signalling syntax
	+ Agreed CRs to TS 26.117
		- Correction to HE-AAC and xHE-AAC stereo mapping to DASH adaptation set
* The Rel-19 work item Stage 2 for Advanced Media Delivery (AMD-ARCH-MED) progressed and is expected to be finalized
	+ Agreed CRs
		- [AMD-ARCH-MED] Alignment with TS 26.501 CR 103 to include reference point M13
		- [AMD-ARCH-MED] MBS User Service and Delivery Protocols for eMBMS
	+ Agreed CRs that will be merged into one mega CR
		- Editorial improvements for TS 26.501
		- [AMD-ARCH-MED] Common Client Metadata
		- [AMD-ARCH-MED] Improved QoS support for Media Streaming services
		- [AMD-ARCH-MED] Distributing encrypted and high-value content
		- Stage-2 Aspects of Network Slicing
		- [AMD-ARCH-MED] Stage 2 for Multi-access media delivery
		- [AMD-ARCH-MED] Media delivery from multiple service endpoints/locations
	+ CRs presented to plenary
		- [AMD-ARCH-MED] In-session Unicast Repair for MBS Object Distribution
		- [AMD-ARCH-MED] MBS Time Synchronization
		- [AMD-ARCH-MED] Advanced Media Delivery; Stage 2 features
	+ Time plan and Work Item Summary presented to plenary
* The Rel-19 study FS\_MeMe (Study on Media Messaging) progressed
	+ Three agreed CRs
		- [FS\_MeMe] IETF MIMI and 3GPP Messaging
		- [FS\_MeMe] Proposed Updates to TR 26.841
	+ Time plan and updated TR 26.841 presented to plenary
* The Rel-19 study FS\_AMD (Study on Advanced Media Delivery) progressed and will be completed
	+ Agreed CRs:
		- Update of NOTE for MBS User Service over eMBMS
		- [FS\_AMD] Improvement to DRM and Conditional Access.
		- Aspects to look into during future study on topic of multi-access media delivery
		- [FS\_AMD] Update to multiple service location media delivery recommendations for stage 3
	+ We present one CR on [FS\_AMD] Combined MBS and Unicast Services here, that has no impact on Rel-19 normative work, but would encourage further study.
	+ We also reviewed Overview Slides on Advanced Media Delivery for 5G-MAG and invite participants to contribute to the slides
	+ We agreed on the final timeplan, and agreed, but no more actions needed.
* The Rel-19 study FS\_MediaEnergyGREEN (Study on Media enerGy consumption exposuRE and EvaluatioN framework) progressed
	+ Five agreed pCRs
		- [FS\_MediaEnergyGREEN] TR 26.942 v1.0.1
		- Pseudo-CR on potential solution to KI1 based Energy Information Exposure Specification to configure the exposure of the UE, network and other entities energy related information to the UE Application
		- [FS\_MediaEnergyGREEN] TR 26.942 v1.0.2
		- [FS\_MediaEnergyGREEN]Text reference for Energy Information Function (EIF)
		- [FS\_MediaEnergyGREEN]Text reference from French Agency for Ecological Transition (ADEME)
		- [FS\_MediaEnergyGREEN]Solution #8: Potential solution to Key Issue #2: UE application energy consumption measurement based on MTD technique
		- [FS\_MediaEnergyGREEN]: Clarifications and additions to Solution #5 on exposure of energy related information
		- [FS\_MediaEnergyGREEN]Solution #7: Potential solution to Key Issue #1: UE energy metrics abstraction
		- [FS\_MediaEnergyGREEN] Conclusions
	+ TR 26.942 will presented to plenary for agreement to be sent to SA plenary for approval.
* We reviewed one input on “Improved MBS/MBMS Operation with Modern Media Players” that may trigger future work. The document was noted.
* Future work plan: MBS SWG has planned Ad Hoc telcos and an extended online meeting until SA4#132
	+ 3GPP SA4 MBS SWG Telco (Mar 20, 2025, 15:30 – 17:30 CET, Host Qualcomm)
	+ 3GPP SA4 MBS SWG Telco (May 7, 2025, 15:30 – 17:30 CEST, Host Qualcomm)
		- Note this is a Wednesday to avoid the holiday on May 8.
* Thanks
	+ Thanks to Julien Lemotheux (Orange), Daniel Venmani (Nokia) and Thomas Stockhammer (Qualcomm) who volunteered to act as scribes and produced these very detailed and accurate minutes.
	+ Thanks to the host, EBU, for excellent meeting facilities
	+ Thanks to all the demo organizer to bring our work to life
	+ Thanks to rapporteurs, editors and contributors for their hard work.

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MBS SWG Minutes SA4#131

## 8.1 Opening of the session, registration of documents

### 8.1.1 Opening of the session

Mr. Frédéric Gabin (Dolby, Chairman of MBS SWG) opens the sessions on February 17, 2025 at 9:00 CET.

Thomas Stockhammer (Qualcomm), Julien Lemotheux (Orange) and Daniel Venmani (Nokia) are assigned as scribes.

The minutes are shared: [MBS SWG Minutes SA4#131](https://docs.google.com/document/d/1GcgQKYc-ANH8imjJX59aqvs0JRinLesvpILuLdHruhM/edit?usp=sharing)

The attendance is tracked [here](#bxrguoa2ijzi).

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

* <https://list.etsi.org/scripts/wa.exe?A1=ind2502C&L=3GPP_TSG_SA_WG4_MBS>

SA4 Schedule: [S4-250251](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250251.zip)

|  |  |
| --- | --- |
| Tdoc S4-250251 | Proposed meeting schedule for SA4#131 |
| TSG SA4#131 | Note: This schedule is INDICATIVE only! The actual schedule depends on progress during the meeting and may change! |
| 17-21 February 2025 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Monday 17th February | Tuesday 18th February | Wednesday 19th February | Thursday 20th February | Friday 21st February |
| Meeting room / local time | Geneve (60) | Montreux (82) | JungFrau (26) | Geneve (60) | Montreux (82) | JungFrau (26) | Geneve (60) | Montreux (82) | JungFrau (26) | Geneve (60) | Montreux (82) | JungFrau (26) | Montreux (82) + Geneve (60) = Léman |
| 0800 - 0830 |  | TBD | Offline on Rel-20 5GA/FS\_6G split | TBD | MBS (AMD-ARCH-MED/FS\_AMD) | TBD | TBD | TBD | MBS (Washup) | TBD | Plenary re-starts at 0800 Agenda items 11-21 |
| 0830 - 0900 |
| 0900 - 0930 | 0900 - Start of SA4 Plenary Agenda items 1-6 | Audio (FS\_ACAPI, IVAS\_Codec\_Ph2, Tdoc 223) | MBS (Rel-18) |  | MBS (AMD-ARCH-MED/FS\_AMD) | Video (FS\_ARSpatial, washup) |  | Audio (washup) | MBS (washup) | RTC (washup) |
| 0930 - 1000 |
| 1000 - 1030 |
| 1030 - 1100 | Coffee break (demos) | Coffee break (demos) | Coffee break (demos) | Coffee break | Coffee break |
| 1100 - 1130 | Agenda items 1-6 | Audio (IVAS\_Codec\_Ph2, Other Rel-19, Tdoc 191) | MBS (AMD-ARCH-MED) |  | MBS (FS\_AMD, FS\_MeMe) | Video (washup) |  | Audio (washup) | Video (washup) | RTC (washup) | Agenda items 11-21 |
| 1130 - 1200 |
| 1200 - 1230 | Offline on AMD Stage 3 |
| 1230 - 1300 | Lunch break (demos) | Lunch break (demos) | Lunch break (demos) | Lunch break | Lunch break |
| 1300 - 1330 |  |
| 1330 - 1400 |  |
| 1400 - 1430 | Audio (ATIAS\_Ph2) | Video (FS\_AVATAR) | RTC (FS\_HapticsMedia, TEI 18/19) | Audio (Rel-18 and earlier) | Video (FS\_AI4Media) | RTC (FS\_iRTCW\_Ph2, LSs) | Audio (IVAS\_Codec\_Ph2, Rel-18 and earlier) | MBS (FS\_MediaEnergyGREEN ) | RTC (5G\_RTP\_Ph2) | Agenda items 17 (New Work / New Work Items and Study Items) | Agenda items 11-21 1600 - End of plenary |
| 1430 - 1500 |
| 1500 - 1530 |
| 1530 - 1600 | Coffee break (demos) | Coffee break (demos) | Coffee break (demos) | Coffee break |  |  |  |
| 1600 - 1630 | Audio (DaCAS) | Video (Tdoc 134, VOPS, FS\_AI4media) | RTC (5G\_RTP\_Ph2) | Audio (IVAS\_Codec\_Ph2) | Video (FS\_Beyond2D) | RTC (SR\_IMS) | Audio (DaCAS, ATIAS\_Ph2) | MBS (FS\_MediaEnergyGREEN / Washup) | RTC (Washup) | Agenda items 11-21 |  |  |  |
| 1630 - 1700 |  |  |  |
| 1700 - 1730 |  |  |  |
| 1730 - 1800 |  |  |  |
| 1800 - 1830 | Audio | TBD | TBD | Audio | Video | TBD | Offline on ULBC | TBD | TBD |  |  |  |
| 1830 - 1900 |  |  |  |
| 1900 - 1930 |  | Offline Work / FS\_Ambisonics |  | Social event (TBC) |  |  |  |
| 1930 - 2000 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

The agenda and the registration of documents are approved.

### 8.1.2 Registration of documents

|  |  |  |  |
| --- | --- | --- | --- |
| TDoc | Title | Source | Agenda item |
| [S4-250029](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250029.zip) | Improved Time Synchronization for MBMS | QUALCOMM Europe Inc. - Spain | 8.4 |
| [S4-250048](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250048.zip) | Correction to xHE-AAC codecs parameter, AMR and EVS capability and media type signalling syntax | Dolby Laboratories Inc., Fraunhofer IIS | 8.4 |
| [S4-250049](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250049.zip) | Correction to HE-AAC and xHE-AAC stereo mapping to DASH adaptation set | Dolby Laboratories Inc., Fraunhofer IIS | 8.4 |
| [S4-250057](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250057.zip) | [PMA-MBS\_Ext, TEI17] XML corrections | BBC, Ateme | 8.4 |
| [S4-250059](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250059.zip) | [PMA-MBS\_Ext, TEI17] XML corrections | BBC, Ateme | 8.4 |
| [S4-250061](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250061.zip) | [5GMS3, TEI18] Align OpenAPI YAML with normative description | BBC | 8.4 |
| [S4-250062](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250062.zip) | [5MBP3, TEI18] Tighten data type of service-class query parameter | BBC | 8.4 |
| [S4-250060](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250060.zip) | [5GMS\_Pro\_Ph2] Explicit deactivation of Dynamic Policy in client API | BBC | 8.4 |
| [S4-250097](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250097.zip) | [5GMS\_Pro\_Ph2] Editorial correction | Nokia | 8.4 |
| [S4-250019](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250019.zip) | [AMD-ARCH-MED] Selected MBMS Functionalities not supported in MBS | Qualcomm Germany | 8.5 |
| [S4-250020](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250020.zip) | [AMD-ARCH-MED] MBS User Service and Delivery Protocols for eMBMS | Qualcomm Germany | 8.5 |
| [S4-250021](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250021.zip) | [AMD-ARCH-MED] Common Client Metadata | Qualcomm Germany | 8.5 |
| [S4-250022](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250022.zip) | [AMD-ARCH-MED] Distributing encrypted and high-value content | Qualcomm Germany | 8.5 |
| [S4-250023](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250023.zip) | [AMD-ARCH-MED] Time and Work Plan for Stage 2 for Advanced Media Delivery | Qualcomm Incorporated (Rapporteur) | 8.5 |
| [S4-250026](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250026.zip) | [AMD-ARCH-MED] In-session Unicast Repair for MBS Object Distribution | Qualcomm Germany, BBC | 8.5 |
| [S4-250027](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250027.zip) | [AMD-ARCH-MED] Work Item Summary for Stage 2 for Advanced Media Delivery | QUALCOMM Europe Inc. - Spain | 8.5 |
| [S4-250103](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250103.zip) | [AMD-ARCH-MED] Media delivery from multiple service endpoints/locations | Dolby Laboratories Inc. | 8.5 |
| [S4-250106](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250106.zip) | [AMD-ARCH-MED] Draft LS on Advanced Media Delivery | QUALCOMM Europe Inc. - Spain | 8.5 |
| [S4-250129](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250129.zip) | Editorial improvements for TS 26.501 | Huawei, HiSilicon | 8.5 |
| [S4-250218](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250218.zip) | [AMD-ARCH-MED] Review of 5G and 5GMS Terminology | Dolby Laboratories Inc. | 8.5 |
| [S4-250146](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250146.zip) | [AMD-ARCH-MED] Update of Improved QoS support for Media Streaming services | Huawei, HiSilicon | 8.5 |
| [S4-250242](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250242.zip) | [AMD-ARCH-MED] Alignment with TS 26.501 CR 103 to include reference point M13 | Dolby Laboratories Inc. | 8.5 |
| [S4-250146](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250146.zip) | [AMD-ARCH-MED] Update of Improved QoS support for Media Streaming services | Huawei, HiSilicon | 8.5 |
| [S4-250242](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250242.zip) | [AMD-ARCH-MED] Alignment with TS 26.501 CR 103 to include reference point M13 | Dolby Laboratories Inc. | 8.5 |
| [S4-250151](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250151.zip) | [FS\_MeMe] Proposed Updates to TR 26.841 | QUALCOMM Europe Inc. - Spain | 8.6 |
| [S4-250016](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250016.zip) | [FS\_AMD] Time and Work Plan for Advanced Media Delivery | Qualcomm Incorporated (Rapporteur) | 8.7 |
| [S4-250017](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250017.zip) | [FS\_AMD] Selective Unicast Requests in MBS/MBMS | Qualcomm Germany | 8.7 |
| [S4-250018](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250018.zip) | [FS\_AMD] Generic Application Service | Qualcomm Germany | 8.7 |
| [S4-250024](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250024.zip) | Overview Slides on Advanced Media Delivery for 5G-MAG | Qualcomm Germany | 8.7 |
| [S4-250028](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250028.zip) | [FS\_AMD] Improvement to DRM and Conditional Access. | QUALCOMM Europe Inc. - Spain | 8.7 |
| [S4-250145](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250145.zip) | Update of NOTE for MBS User Service over eMBMS | Huawei, HiSilicon | 8.7 |
| [S4-250209](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250209.zip) | [FS-AMD WT 3b]: Documenting future work with multi-access media delivery | Samsung Electronics Iberia SA | 8.7 |
| [S4-250042](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250042.zip) | [FS\_MediaEnergyGREEN] TR 26.942 v1.0.1 | Orange Belgium | 8.8 |
| [S4-250043](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250043.zip) | [FS\_MediaEnergyGREEN] Conclusions | Orange Belgium | 8.8 |
| [S4-250150](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250150.zip) | Pseudo-CR on potential solution to KI1 based Energy Information Exposure Specification to configure the exposure of the UE, network and other entities energy related information to the UE Application | InterDigital, BBC | 8.8 |
| [S4-250184](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250184.zip) | [FS\_MediaEnergyGREEN]Text reference from French Agency for Ecological Transition (ADEME) | Nokia | 8.8 |
| [S4-250185](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250185.zip) | [FS\_MediaEnergyGREEN]Text reference for Energy Information Function (EIF) | Nokia | 8.8 |
| [S4-250186](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250186.zip) | [FS\_MediaEnergyGREEN]Energy Efficiency and Application software Programming | Nokia | 8.8 |
| [S4-250188](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250188.zip) | [FS\_MediaEnergyGREEN]Solution #7: Potential solution to Key Issue #1: UE energy metrics abstraction | Nokia, Interdigital, BBC, Orange | 8.8 |
| [S4-250189](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250189.zip) | [FS\_MediaEnergyGREEN]Solution #8: Potential solution to Key Issue #2: UE application energy consumption measurement based on MTD technique | Nokia | 8.8 |
| [S4-250208](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250208.zip) | [FS\_MediaEnergyGREEN]: Clarifications and additions to Solution #5 on exposure of energy related information | Samsung Electronics Iberia SA | 8.8 |
| [S4-250246](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250246.zip) | [FS\_MediaEnergyGREEN] TR 26.942 v1.0.2 | Orange Belgium | 8.8 |
| [S4-250030](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250030.zip) | Improved MBS/MBMS Operation with Modern Media Players | QUALCOMM Europe Inc. - Spain | 8.9 |

## 8.2 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."*

## 8.3 Reports/Liaisons from other groups/meetings

### 8.3.1 Incoming LSs

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-250275](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250275.zip) | Reply LS on Time Synchronization for MBS | SA2 | Andrijana Brekalo |

**Presenter**: Frederic Gabin

**Online Discussion**:

* Taken into consideration in discussion on time synchronisation for MBS.

**Decision**: Noted

[S4-250275](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250275.zip) is **noted**.

###

|  |  |  |  |
| --- | --- | --- | --- |
| [S4-250279](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250279.zip) | Reply LS on Time Synchronization for MBS | RAN2 | Andrijana Brekalo |

**Presenter**: Thomas Stockhammer

**Online Discussion**:

* No comments

**Decision**: Noted

[S4-250279](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250279.zip) is **noted**.

### 8.3.2 Proposed Responses

none

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| [**S4-250029**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250029.zip) | Improved Time Synchronization for MBMS | QUALCOMM Europe Inc. - Spain | In the text, there are guidelines for time synchronization between the BM-SC and MBMS UEs, focusing on using SNTP for accuracy within +/- 1 second tolerance. MB-SC offers a time server for synchronization, and MBMS UEs should synchronize periodically to meet the tolerance limit. Different modes of SNTP synchronization, such as anycast and unicast, are discussed based on network support. The text also covers details on SNTP server addresses, multicast group assignments, and how MBMS UEs should select the SNTP mode for synchronization. Overall, the document emphasizes maintaining accurate time synchronization in MBMS networks for efficient operations. | Thomas Stockhammer |

**Revisions**:

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| icon | [S4-250029\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250029_BBC.docx) | 2025/02/12 18:49 | 50,6 KB |
| icon | [S4-250029r01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250029r01.docx) | 2025/02/18 6:07 | 51,1 KB |
| icon | [S4-250029r01\_Ericsson.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250029r01_Ericsson.docx) | 2025/02/18 9:41 | 52,1 KB |
| icon | [S4-250029r01\_Ericsson\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250029r01_Ericsson_BBC.docx) | 2025/02/18 18:12 | 53,5 KB |
| icon | [S4-250029r02.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250029r02.docx) | 2025/02/20 4:06 | 55,9 KB |
| icon | [S4-250029r02\_Ericsson.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250029r02_Ericsson.docx) | 2025/02/20 7:31 | 55,8 KB |

**Presenter**: Thomas Stockhammer

**Online Discussion**:

* r01 version presented.
* Thorsten: SIB16 is UTC, the phrasing is disturbing. And it assumes 10ms. It is a bit inconsistent. It is not sure if the UE is using the NTP or not. THe BM-SC doesn’t have this information. It is a RAN topic.
	+ Thomas: Maybe we should remove the tolerance.
	+ Thorsten: OK, I will come with a revision.
* r02 version presented.
* Thomas: We probably need to tick the box in the cover page but Frederic would be in trouble during SA plenary.
	+ Thorsten: Should we send an LS to RAN.
	+ Frederic: There is work to be done here.
	+ Thorsten: the use of May/shall by E-UTRAN may need more thoughts.

**Decision**:

[S4-250029](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250029.zip) is **revised to S4-250325**.

**S4-250325 Is agreed**.

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| [**S4-250048**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250048.zip) | Correction to xHE-AAC codecs parameter, AMR and EVS capability and media type signalling syntax | Dolby Laboratories Inc., Fraunhofer IIS | The text describes the capabilities and requirements for playing back and generating different audio file formats in the context of the 3GPP TSG-SA4 Meeting #131 in Geneva, Switzerland. Specific definitions and specifications are provided for capabilities such as IVAS, EVS, AMR-WB, AMR, xHE-AAC, and eAAC+. For each capability, details include the necessary decoder capabilities, ISO BMFF track requirements, 3GP file conformity, and media type signaling. Additionally, content generator capabilities for each audio format are outlined, detailing the real-time file generation, encoding requirements, ISO BMFF track specifications, 3GP file creation, and media type signaling provisions for compatibility. | Frederic Gabin |

**Revisions**: none

**Presenter**: Frederic Gabin

**Online Discussion**:

* No comments.

**Decision**: Agreed.

[S4-250048](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250048.zip) is **agreed**.

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| [**S4-250049**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250049.zip) | Correction to HE-AAC and xHE-AAC stereo mapping to DASH adaptation set | Dolby Laboratories Inc., Fraunhofer IIS | The text discusses the mapping of different audio compression formats to DASH Adaptation Sets in ISO standards. For eAAC+ stereo content, specific parameters need to be set at the Adaptation Set level. Additionally, it mentions that an Adaptation Set conforming to eAAC+ stereo can also be played by receivers conforming to xHE-AAC media profile. In the case of xHE-AAC stereo content, requirements include compliance with specific CMAF media profiles and signaling the channel configuration. The text emphasizes setting the audio sampling rate and using the correct profiles parameter to signal conformance to the Media Profile. These guidelines ensure compatibility and standardization for audio content in DASH presentations. | Frederic Gabin |

**Revisions**: none

**Presenter**: Frederic Gabin

**Online Discussion**:

* Frederic: I will check with audio SWG during plenary.
* No comments.

**Decision**: Agreed.

[S4-250049](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250049.zip) is **agreed**.

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| [**S4-250057**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250057.zip) | [PMA-MBS\_Ext, TEI17] XML corrections | BBC, Ateme |  | Richard Bradbury |

**Revisions**: none

**Presenter**: Richard Bradbury

**Online Discussion**:

* No comments

**Decision**: Agreed.

[S4-250057](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250057.zip) is **agreed**.

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| [**S4-250059**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250059.zip) | [PMA-MBS\_Ext, TEI17] XML corrections | BBC, Ateme |  | Richard Bradbury |

**Revisions**: none

**Presenter**: Richard Bradbury

**Online Discussion**:

* Frederic: The work item code should be TEI19.
	+ Richard: OK I will correct.

**Decision**: Revised to change the Work Item code. The revision will be agreed without presentation.

[S4-250059](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250059.zip) is **revised to S4-250261**.

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| [**S4-250261**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250261.zip) | [PMA-MBS\_Ext, TEI17] XML corrections | BBC, Ateme |  | Richard Bradbury |

**Decision**: Agreed without presentation.

[S4-250261](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250261.zip) is **agreed**.

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| [**S4-250061**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250061.zip) | [5GMS3, TEI18] Align OpenAPI YAML with normative description | BBC | The text discusses the OpenAPI representation of the M5 APIs in the context of the 3GPP TSG-S4 Meeting #131 held in Geneva. It specifies the normative code for APIs, including JSON Schema representations, published on the 3GPP Forge. YAML files corresponding to the document version will be available on the Forge. It emphasizes the importance of referencing entities using the OpenAPI definitions contained in a file named "TS26512\_Maf\_SessionHandling.yaml." Additionally, it highlights that the M5\_DynamicPolicies API and M5\_NetworkAssistance API files are for maintaining backwards compatibility for Release 17 of TS 29.517 and should not be used in the present release. | Richard Bradbury |

**Revisions**: none

**Presenter**: Richard Bradbury

**Online Discussion**:

* No comments.

**Decision**: Agreed.

[S4-250061](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250061.zip) is **agreed**.

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| [**S4-250062**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250062.zip) | [5MBP3, TEI18] Tighten data type of service-class query parameter | BBC | The text discusses the revision of the MBS User Service Announcement schema during the 3GPP TSG-S4 meeting ad hoc post #131 in Geneva, France, held from 17th to 21st February 2025. The first change involves specifying the format of User Service Descriptions instance documents using a JSON-based representation. Documents following this schema should be identified with the MIME type application/mbs-user-service-descriptions+json. The schema filename is TS26517\_MBSUserServiceAnnouncement.yaml. The document marks the end of the changes made to the schema. | Richard Bradbury |

**Revisions**: none

**Presenter**: Richard Bradbury

**Online Discussion**:

* No comments.

**Decision**: Agreed.

[S4-250062](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250062.zip) is **agreed**.

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| [**S4-250060**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250060.zip) | [5GMS\_Pro\_Ph2] Explicit deactivation of Dynamic Policy in client API | BBC | The text discusses a revision of the activatePolicy() method at the 3GPP TSG-S4 Meeting #131 in Geneva, Switzerland, from 17th to 21st February 2025. The method is used to apply dynamic policy to a media delivery session managed by the Media Session Handler. The dynamic policy affects all application flows matching the Media AS domain name of the session created. Input parameters and return values of the method are detailed in tables 11.3.1.2-1 and 11.3.1.2-2 respectively. The revision addresses the activation of dynamic policies for media delivery sessions within specified constraints, including a Background Data Transfer time window. Additional changes may follow in the future. | Richard Bradbury |

**Revisions**: none

**Presenter**: Richard Bradbury

**Online Discussion**:

* Richard: This one was endorsed during Ad Hoc.
* No comments.

**Decision**: Agreed.

[S4-250060](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250060.zip) is **agreed**.

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| [**S4-250097**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250097.zip) | [5GMS\_Pro\_Ph2] Editorial correction | Nokia | The text discusses changes related to network assistance invocation and ANBR-based network assistance in the 3GPP TSG-S4 Meeting #131 held in Geneva from 17-21 February 2025. It details procedures for setting initial bit rates, receiving and responding to bit rate recommendations, and requesting delivery boosts during media delivery sessions. The implementation involves interactions between the Media Access Function, Media Session Handler, UE modem, and RAN. The text also addresses obtaining status information and notification events related to network assistance. The changes aim to improve the efficiency and quality of media delivery sessions through enhanced network assistance mechanisms and coordination between network components. | Xuan (Shane) He |

**Revisions**: none

**Presenter**: Xuan (Shane) He

**Online Discussion**:

* Shane: This CR was already presented during AhG.
* No comments.

**Decision**: Agreed.

[S4-250097](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250097.zip) is **agreed**.

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| [**S4-250019**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250019.zip) | [AMD-ARCH-MED] Selected MBMS Functionalities not supported in MBS | Qualcomm Germany | The text discusses various reference documents related to 3GPP specifications, including system architecture, procedures, security, and multimedia services. It outlines the functions and interactions of entities like MBS AS and MBS Client in supporting MBS User Services. The MBS Client, part of the UE, is further divided into subfunctions that handle communication with MBS AF, MBSTF, and MBS AS for various tasks. Reference points relevant to MBS User Services architecture are defined, along with the parameters for MBS User Service Announcement. The text provides detailed information on the components and interactions involved in supporting multicast-broadcast services in the 5G system. | Thomas Stockhammer |

**Revisions**:

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| icon | [S4-250019\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250019_BBC.docx) | 2025/02/12 18:46 | 204,4 KB |
| icon | [S4-250019\_BBC\_Ericsson.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250019_BBC_Ericsson.docx) | 2025/02/19 11:02 | 205,2 KB |
| icon | [S4-250019r01 Ericsson.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250019r01%20Ericsson.docx) | 2025/02/20 7:26 | 211 KB |
| icon | [S4-250019r01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250019r01.docx) | 2025/02/20 5:34 | 211,3 KB |

**Presenter**: Thomas Stockhammer

**Online Discussion**:

* \_BBC version presented.
* Thorsten: In 4.2.7, maybe we could have this more generic.
	+ Thomas: This comes from SA2, these are their recommendations.
	+ Thorsten: We should check on eMBMS. In my understanding SIB9 uses the same time as SIB16.
	+ Frederic: OK, we need to check the SA2 LS. In this LS, NG-RAN Node, MBSF and MBSTF shall be synchronised and SIB9 is optional.
* Frederic: There is no shall requirement on maintaining +-1s.
	+ Thomas: How can you check it?
* rev01 presented.
	+ Thorsten: Are we taking some decisions implicitly in stage-2?
	+ Thomas: Probably not here.

**Decision**:

[S4-250019](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250019.zip) is **revised to S4-250326**.

**S4-250326 is agreed**.

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| [**S4-250**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250061.zip)**291** | [FS\_AMD] Update to multiple service location media delivery recommendations for stage 3 | Dolby |  | Jason Cloud |

**Revisions**:

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| [S4-250291r01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250291r01.docx) | 19/02/2025 15:04 | 33,5 KB |
| [S4-250291r02.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250291r02.docx) | 19/02/2025 18:02 | 34 KB |

**Presenter**: Jason Cloud

**Online Discussion**:

* Fred: Add references, make corrections to the cover page.

**Decision**: revised to 323.

[S4-250061](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250061.zip) is **revised to S4-250323.**

**S4-250323 is revised to S4-250328.**

**S4-250328 is agreed**.

## 8.5 Stage 2 for Advanced Media Delivery (AMD-ARCH-MED)

[*SP-241963*](https://www.3gpp.org/ftp/Meetings_3GPP_SYNC/SA/Docs/SP-241963.zip) *Stage 2 for Advanced Media Delivery (AMD-ARCH-MED)*

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| [**S4-250020**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250020.zip) | [AMD-ARCH-MED] MBS User Service and Delivery Protocols for eMBMS | Qualcomm Germany | The text discusses the interworking between Multicast/Broadcast Service (MBS) and evolved Multimedia Broadcast/Multicast Service (eMBMS) in the context of 5G networks. It outlines the architecture and functionality required to support MBS-eMBMS interworking, emphasizing the provisioning of User Services, content ingestion, and distribution methods to ensure service continuity between MBS and eMBMS systems. The document references various specifications related to 5G network architecture, security, and protocols. Overall, the focus is on describing the system architecture and operational procedures for enabling seamless interworking between MBS and eMBMS services within the evolving cellular network environment. | Thomas Stockhammer |

**Revisions**:

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| --- | --- | --- | --- |
| icon | [S4-250020\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250020_BBC.docx) | 2025/02/12 18:54 | 694,2 KB |
| icon | [S4-250020r01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250020r01.docx) | 2025/02/18 6:21 | 695,9 KB |
| icon | [S4-250020r01\_Huawei.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250020r01_Huawei.docx) | 2025/02/18 16:48 | 696 KB |
| icon | [S4-250020r02.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250020r02.docx) | 2025/02/20 5:08 | 702,5 KB |
| icon | [S4-250020r02\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250020r02_BBC.docx) | 2025/02/20 7:56 | 703,4 KB |

**Presenter**: Thomas Stockhammer

**Online Discussion**:

* \_Huawei version presented.
* Frederic: I would need clarifications about the asterisk. This means these interfaces are extended. Then it says no modifications are needed.
	+ Thomas: OK.
* Thorsten: Do we also need an asterisk on Nmb5?
	+ Thomas: I don’t know, maybe we can make a prose.
* Frederic: Why is the Annex informative?
	+ Thomas: There are potentially issues we have not fixed.
* Richard: Could we add a sentence at the end of clause X1 in the Annex?
* Thorsten: It seems more on the study side than full agreement.
	+ Frederic: We need completion this week. Using an informative annex seems a good solution and adds a note that could become normative after communication with SA2.
	+ Richard: Interesting suggestion.
	+ Thorsten: OK. Is it a principle to use group communication? If yes, we can add this to 1.1.
	+ Thomas: It is in this version. But we could add transparent mode in a future version.
	+ Thorsten: It could be good to add a sentence because currently the focus is on this one.
* Frederic: OK, keep the annex as informative, a note has to be added, asterisks have to be removed from Nmb8 and added to Nmb5, and some fixes to be done to improve english.
* 020rev02\_BBC is presented.
	+ Richard: it is weird to add a note under general clause.
	+ Fred: stating the obvious under this general clause would be good, in Annex x informative.

**Decision**:

[S4-250020](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250020.zip) is **revised to S4-250330**.

**S4-250330 is agreed.**

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| [**S4-250021**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250021.zip) | [AMD-ARCH-MED] Common Client Metadata | Qualcomm Germany | The text provides detailed information about the 5G Media Streaming (5GMS) architecture, focusing on downlink and uplink media streaming services in the 5G network. It outlines the components and functions of the 5GMS system, including 5GMS clients, media players, session handlers, application servers, and more. The document also highlights the interfaces, APIs, and protocols used for media streaming, content hosting, dynamic policy management, and service access information. Additionally, the text covers concepts like media session handling, metrics reporting, policy templates, and network assistance for optimizing media delivery. The architecture diagrams and tables help visualize the interactions and configurations within the system. | Thomas Stockhammer |

**Revisions**:

* https://www.3gpp.org/ftp/tsg\_sa/WG4\_CODEC/TSGS4\_131\_Geneva/Inbox/Drafts/MBS/S4-250021\_BBC.docx

**Presenter**: Thomas Stockhammer

**Online Discussion**:

* BBC version presented.
* No comments.

**Decision**: Revised according to BBC version. The revision will be agreed without presentation.

[S4-250021](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250021.zip) is **revised to S4-250264.**

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| [**S4-250**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250021.zip)**264** | [AMD-ARCH-MED] Common Client Metadata | Qualcomm Germany | The text provides detailed information about the 5G Media Streaming (5GMS) architecture, focusing on downlink and uplink media streaming services in the 5G network. It outlines the components and functions of the 5GMS system, including 5GMS clients, media players, session handlers, application servers, and more. The document also highlights the interfaces, APIs, and protocols used for media streaming, content hosting, dynamic policy management, and service access information. Additionally, the text covers concepts like media session handling, metrics reporting, policy templates, and network assistance for optimizing media delivery. The architecture diagrams and tables help visualize the interactions and configurations within the system. | Thomas Stockhammer |

**Decision**: Agreed without presentation.

[S4-250264](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250264.zip) is **agreed and is merged to S4-250319**.

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| [**S4-250022**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250022.zip) | [AMD-ARCH-MED] Distributing encrypted and high-value content | Qualcomm Germany | The text discusses the content preparation feature within the 5GMS system for both downlink and uplink media streaming scenarios. This feature allows Application Providers to specify content manipulation by network-side components through Content Preparation Templates. For downlink streaming, the network components can manipulate and cache media content before serving it to the client device. Similarly, for uplink streaming, the network components can manipulate and cache content before sending it to the Application Provider. These functionalities are part of the larger framework for 5G Media Streaming systems. | Thomas Stockhammer |

**Revisions**:

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| [S4-250022r01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250022r01.docx) | 18/02/2025 8:04 | 1218 KB |
| [S4-250022r01\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250022r01_BBC.docx) | 18/02/2025 18:27 | 629,5 KB |
| [S4-250022\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250022_BBC.docx) | 12/02/2025 18:58 | 1219 KB |
| [S4-250022\_BBC\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250022_BBC_BBC.docx) | 13/02/2025 13:47 | 1217,9 KB |

**Presenter**: Thomas Stockhammer

**Online Discussion**:

* r01 version presented.
* Richard: We will probably have to add key rotation.
	+ Thomas: This can be in key distribution.
	+ Richard: It could be a good idea to have a separate diagram.
	+ Thomas: I didn’t want to add this during this meeting but we can add a note.
	+ Frederic: This can be managed with a fix.

**Decision**: r01 agreeable with a note about key rotation. Revised and the revision will be agreed without presentation.

[S4-250022](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250022.zip) is **revised to S4-250263.**

**S4-250263 is agreed and is merged to S4-250319.**

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| [**S4-250**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250022.zip)**263** | [AMD-ARCH-MED] Distributing encrypted and high-value content | Qualcomm Germany | The text discusses the content preparation feature within the 5GMS system for both downlink and uplink media streaming scenarios. This feature allows Application Providers to specify content manipulation by network-side components through Content Preparation Templates. For downlink streaming, the network components can manipulate and cache media content before serving it to the client device. Similarly, for uplink streaming, the network components can manipulate and cache content before sending it to the Application Provider. These functionalities are part of the larger framework for 5G Media Streaming systems. | Thomas Stockhammer |

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| [**S4-250263\_BBC.docx**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250263_BBC.docx) | **18/02/2025 23:30** | **620,2 KB** |

**Decision**: Was agreed but then revised due to editorial corrections.

[S4-250263](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250263.zip) is revised to **S4-250270**.

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| [**S4-250**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250022.zip)**270** | [AMD-ARCH-MED] Distributing encrypted and high-value content | Qualcomm Germany | The text discusses the content preparation feature within the 5GMS system for both downlink and uplink media streaming scenarios. This feature allows Application Providers to specify content manipulation by network-side components through Content Preparation Templates. For downlink streaming, the network components can manipulate and cache media content before serving it to the client device. Similarly, for uplink streaming, the network components can manipulate and cache content before sending it to the Application Provider. These functionalities are part of the larger framework for 5G Media Streaming systems. | Thomas Stockhammer |

**Decision**: Was agreed but then revised due to editorial corrections.

[S4-250270](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250270.zip) is **agreed**.

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| [**S4-250023**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250023.zip) | [AMD-ARCH-MED] Time and Work Plan for Stage 2 for Advanced Media Delivery | Qualcomm Incorporated (Rapporteur) | The text discusses the agenda item 8.6 from the 3GPP TSG-SA4 Meeting #131, focusing on the advanced media delivery stage 2 work item. It outlines objectives related to extending specifications for media delivery architectures and functionalities, addressing key issues such as in-session unicast repair, different media delivery protocols, and support for various functionalities. The document emphasizes the coordination with other 3GPP groups and external organizations. It also provides guidelines for scheduling meetings, tracking work progress, and managing change requests. The proposed time and work plan include specified weeks for meetings, preferred days for different study groups, and methods for handling contributions and **revisions**. | Thomas Stockhammer |

**Revisions**: none

**Presenter**: Thomas Stockhammer

**Online Discussion**:

* Julien: Why don’t we have 100% completion?
	+ Frederic: The WI is completed. But improvement via CR is expected on the specification.

**Decision**: Agreed.

[S4-250023](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250023.zip) is **agreed**.

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| [**S4-250026**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250026.zip) | [AMD-ARCH-MED] In-session Unicast Repair for MBS Object Distribution | Qualcomm Germany, BBC | The text discusses the revision of the architecture and procedures for User Services utilizing the 5G multicast-broadcast capabilities within the 5G System. It outlines references, user services network architecture, object repair, MBS application provisioning, interworking with eMBMS, high-level procedures for MBS user services provisioning, and data repair procedures. Key points include the creation of MBS User Services, MBS Distribution Sessions provisioning, and content ingest processes. Additionally, it covers the interworking between MBS and eMBMS, the provisioning of MBS User Data Ingest Sessions, and the collaboration between the MBSTF Client and the MBS AS for data repair in Object Distribution Method scenarios. | Thomas Stockhammer |

**Revisions**: none

**Presenter**: Thomas Stockhammer

**Online Discussion**:

* Richard: We might need to merge.
	+ Thomas: Yes.
* Thomas: There are comments to be removed and I need to fix the release.

**Decision**: Revised to remove comments and fix release. The revision will be agreed without presentation

[S4-250026](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250026.zip) is **revised to S4-250271**.

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| [**S4-250271**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250271.zip) | [AMD-ARCH-MED] In-session Unicast Repair for MBS Object Distribution | Qualcomm Germany, BBC | The text discusses the revision of the architecture and procedures for User Services utilizing the 5G multicast-broadcast capabilities within the 5G System. It outlines references, user services network architecture, object repair, MBS application provisioning, interworking with eMBMS, high-level procedures for MBS user services provisioning, and data repair procedures. Key points include the creation of MBS User Services, MBS Distribution Sessions provisioning, and content ingest processes. Additionally, it covers the interworking between MBS and eMBMS, the provisioning of MBS User Data Ingest Sessions, and the collaboration between the MBSTF Client and the MBS AS for data repair in Object Distribution Method scenarios. | Thomas Stockhammer |

**Decision**: Agreed without presentation

[S4-250271](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250271.zip) is **agreed**.

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| [**S4-250027**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250027.zip) | [AMD-ARCH-MED] Work Item Summary for Stage 2 for Advanced Media Delivery | QUALCOMM Europe Inc. - Spain | The document provides a summary of the Work Item 5G Media Streaming Protocols Phase 2 discussed at the 3GPP TSG SA Meeting #107. It focuses on the delivery of segmented media objects at specific reference points in the Media Delivery architecture. Key issues like in-session unicast repair, MBS User Service enhancements, and support for selected MBMS functionalities have been identified. Updates are recommended for areas such as Common Client Metadata, multi-access media delivery, and improved QoS support. The Study on Media Streaming aspects of Network Slicing Phase 2 resulted in enhancements to be implemented in TS 26.501. The work item and related updates aim to address the evolving needs of mobile media delivery in the 5G era. | Thomas Stockhammer |

**Revisions**: none

**Presenter**: Thomas Stockhammer

**Online Discussion**:

* Frederic: It is not necessary to speak about the Work Item and objectives. The WIS should be considered as an opportunity to promote our work.
	+ Thomas: OK, I will revise.

**Decision**: Revised.

[S4-250027](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250027.zip) is **revised to S4-250281**.

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| [**S4-250281**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250281.zip) | [AMD-ARCH-MED] Work Item Summary for Stage 2 for Advanced Media Delivery | QUALCOMM Europe Inc. - Spain | The document provides a summary of the Work Item 5G Media Streaming Protocols Phase 2 discussed at the 3GPP TSG SA Meeting #107. It focuses on the delivery of segmented media objects at specific reference points in the Media Delivery architecture. Key issues like in-session unicast repair, MBS User Service enhancements, and support for selected MBMS functionalities have been identified. Updates are recommended for areas such as Common Client Metadata, multi-access media delivery, and improved QoS support. The Study on Media Streaming aspects of Network Slicing Phase 2 resulted in enhancements to be implemented in TS 26.501. The work item and related updates aim to address the evolving needs of mobile media delivery in the 5G era. | Thomas Stockhammer |

**Decision**: Not presented. Goes to the closing plenary.

[S4-250281](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250281.zip) **goes to the closing plenary**.

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| [**S4-250103**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250103.zip) | [AMD-ARCH-MED] Media delivery from multiple service endpoints/locations | Dolby Laboratories Inc. | The text discusses a meeting on 3GPP TSG-SA4 standards for media streaming architecture held in Geneva from Feb 17 to Feb 21, 2025. It details terms like Media Entry Point, Media Player Entry, and Media Streamer Entry in the context of streaming media delivery. The document defines key features of the 5GMS architecture and reference points for media delivery. It also covers content hosting for downlink media streaming and provides a breakdown of client and network-side components. The architecture for both downlink and uplink media streaming is explained, including UE functions, APIs, and service access information. Additionally, media processing procedures for downlink media streaming are outlined. | Jason Cloud |

**Revisions**:

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| [S4-250103r01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250103r01.docx) | 13/02/2025 1:53 | 2006,5 KB |
| [S4-250103r01\_QCOM.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250103r01_QCOM.docx) | 18/02/2025 10:46 | 2007,2 KB |
| [S4-250103r02.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250103r02.docx) | 18/02/2025 14:34 | 1605,2 KB |
| [S4-250103r02\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250103r02_BBC.docx) | 18/02/2025 17:57 | 1724,2 KB |
| [S4-250103r03.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250103r03.docx) | 19/02/2025 7:28 | 1725,9 KB |
| [S4-250103\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250103_BBC.docx) | 12/02/2025 19:00 | 1991,4 KB |

**Presenter**: Jason Cloud

**Online Discussion**:

* r01 \_QCOM version presented.
* Frederic: Comments in revisions need to be taken into account.

**Decision**: Revised.

[S4-250103](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250103.zip) is **revised to S4-250267 is merged to 319**.

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| [**S4-250267**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250267.zip) | [AMD-ARCH-MED] Media delivery from multiple service endpoints/locations | Dolby Laboratories Inc. | The text discusses a meeting on 3GPP TSG-SA4 standards for media streaming architecture held in Geneva from Feb 17 to Feb 21, 2025. It details terms like Media Entry Point, Media Player Entry, and Media Streamer Entry in the context of streaming media delivery. The document defines key features of the 5GMS architecture and reference points for media delivery. It also covers content hosting for downlink media streaming and provides a breakdown of client and network-side components. The architecture for both downlink and uplink media streaming is explained, including UE functions, APIs, and service access information. Additionally, media processing procedures for downlink media streaming are outlined. | Jason Cloud |

**Revisions**: none

**Presenter**: Jason Cloud

**Online Discussion**:

* Richard: 7 reference step 8, should that be step 6?
	+ Jason: Yes. I will fix that.
* Richard: And there are changes over changes. For example in step 10.
* Thomas: Do we need a merge?
	+ Frederic: We agree and then discuss it during the washup.

**Decision**: Revised. The revision will be agreed without presentation.

[S4-250267](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250267.zip) is **revised to S4-250312**.

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| [**S4-250312**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250312.zip) | [AMD-ARCH-MED] Media delivery from multiple service endpoints/locations | Dolby Laboratories Inc. | The text discusses a meeting on 3GPP TSG-SA4 standards for media streaming architecture held in Geneva from Feb 17 to Feb 21, 2025. It details terms like Media Entry Point, Media Player Entry, and Media Streamer Entry in the context of streaming media delivery. The document defines key features of the 5GMS architecture and reference points for media delivery. It also covers content hosting for downlink media streaming and provides a breakdown of client and network-side components. The architecture for both downlink and uplink media streaming is explained, including UE functions, APIs, and service access information. Additionally, media processing procedures for downlink media streaming are outlined. | Jason Cloud |

**Decision**: Agreed without presentation.

[S4-250312](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250312.zip) is **agreed and is merged to S4-250319.**

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| [**S4-250106**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250106.zip) | [AMD-ARCH-MED] Draft LS on Advanced Media Delivery | QUALCOMM Europe Inc. - Spain | During the 3GPP TSG-SA WG4 Meeting #131 in Geneva, the focus was on Advanced Media Delivery with a draft LS being discussed. SA4 completed work on a feasibility study and agreed on relevant change requests for approval. The meeting identified impacts on specifications for 5G Media Streaming and MBS User services. Stage-3 work was also planned to address protocol and format extensions for Advanced Media Delivery. Specific impacts were noted for various features, prompting requests for CT3 and CT4 to address relevant extensions in corresponding stage-3 specifications. The next meetings of TSG SA and TSG SA WG4 are scheduled for April, May, and July 2025. | Thomas Stockhammer |

**Revisions**: none

**Presenter**: Thomas Stockhammer

**Online Discussion**:

* Richard: Last time, we organised a joint call and it worked well.
	+ Frederic: Or we can invite them to our call. We can add this to the LS.
	+ Frederic: We can indicate there are impacts and supporting companies will bring CRs.
* Frederic: Parked and revised waiting for CRs.

**Decision**: Revised.

[S4-250106](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250106.zip) is **revised to S4-250343.**

**S4-250343 goes to the closing plenary.**

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| [**S4-250129**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250129.zip) | Editorial improvements for TS 26.501 | Huawei, HiSilicon | . | Rufail Mekuria |

**Revisions**:

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| [S4-250129\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250129_BBC.docx) | 12/02/2025 20:01 | 1275,9 KB |

**Presenter**: Richard Barbury

**Online Discussion**:

* BBC version presented.
* Richard: It is purely editorial.
* Thomas: The Rel-19 CRs should also integrate all those corrections.
	+ Frederic: For Rel-18, we should not do editorial corrections if it is not essential.
	+ Richard: In this case, I can revert the Work Item code and the release to integrate this in Rel-19 and not Rel-18.
* Richard: Will produce a revision.

**Decision**: Revised. The revision will be agreed without presentation and will be probably merged during the plenary.

[S4-250129](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250129.zip) is **revised to S4-250262**.

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| [**S4-250**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250129.zip)**262** | Editorial improvements for TS 26.501 | Huawei, HiSilicon |  | Rufail Mekuria |

**Decision**: Agreed without presentation and will be probably merged during the plenary.

[S4-250262](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250262.zip) is **is merged to 319 and agreed**.

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| [**S4-250218**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250218.zip) | [AMD-ARCH-MED] Review of 5G and 5GMS Terminology | Dolby Laboratories Inc. | The text discusses the terminology related to 5G and 5G Media Streaming (5GMS) architecture, focusing on concepts such as Network Functions (NF), NF instances, NF services, NF sets, and instances within the 3GPP specifications. It also delves into the definitions and examples of use of instances within the 5GMS architecture. The text emphasizes the importance of using consistent terminology to avoid confusion and provides recommendations on the use of "instance" and other related terms within the specifications. It also touches on the distinction between using "instance" and "service location" in specific contexts within the 5GMS architecture. | Jason Cloud |

**Revisions**: none

**Presenter**: Jason Cloud

**Online Discussion**:

* Richard: I agree with slide 20 but not 19. The service location is about serving content. I think only M4 is relevant here.
* Richard: I am not sure the definition in 23.501 is to be used.
	+ Jason: I try to be consistent. There is no definition in 26.501.
* Imed: Why could an AS be considered as a network function? I don’t recall an AS exposing service-based interface. Maybe we could clarify these 2 points.
	+ Richard: I think Imed is right.
* Jason: I can transpose the definitions to 26.501 with a CR.

**Decision**: Noted. This will be transposed to the definitions in 26.501.

[S4-250218](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250218.zip) is **noted**.

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| [**S4-250146**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250146.zip) | [AMD-ARCH-MED] Update of Improved QoS support for Media Streaming services | Huawei, HiSilicon | The text discusses an update on improved Quality of Service (QoS) support for media streaming services in the context of a telecommunication meeting. The update focuses on dynamic policies applicable to both downlink and uplink media streaming in a 5G network. The proposal includes details on how the 5GMS Client can manipulate network traffic handling policies for media streaming sessions. It also covers the provisioning of Policy Templates, Service Operation Points, QoS monitoring parameters, and the activation of dynamic policies. Additionally, the text outlines the baseline provisioning procedures for downlink and uplink media streaming sessions, including steps for content hosting, dynamic policy activation, and QoS monitoring. | Qi Pan |

**Revisions**:

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| [S4-250146r01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250146r01.docx) | 18/02/2025 8:46 | 650,2 KB |
| [S4-250146r02.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250146r02.docx) | 18/02/2025 14:20 | 866,4 KB |
| [S4-250146r02\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250146r02_BBC.docx) | 18/02/2025 19:35 | 1176,2 KB |
| [S4-250146r03.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250146r03.docx) | 18/02/2025 21:11 | 1309,9 KB |
| [S4-250146r03\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250146r03_BBC.docx) | 18/02/2025 22:30 | 937,6 KB |
| [S4-250146r04.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250146r04.docx) | 19/02/2025 12:41 | 878,1 KB |
| [S4-250146r04\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250146r04_BBC.docx) | 19/02/2025 16:49 | 880,4 KB |
| [S4-250146r05.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250146r05.docx) | 19/02/2025 17:05 | 877,3 KB |
| [S4-250146\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250146_BBC.docx) | 12/02/2025 19:04 | 651,4 KB |

**Presenter**: Qi Pan

**Online Discussion**:

* r01 version presented
* Thorsten: I sent an email with questions. Does 5GMS AS receive QoS monitoring? Is it just stored for later usage? Is it latency or PDB monitoring? …
	+ Qi: I already provide some feedback via emails.
* Imed: I am not sure you followed what we have done in 26.510. For example, we have MQTT channels for notification. What is new here?
	+ Richard: During the provisioning time, you nominate QoS parameters of interest.
* Richard: Step 8 in a stage-3. We should delete MQTT, it is a protocol. We can continue to work on this this week.
* Thorsten: What is the difference between QoS monitoring and network assistance? Do we really need a new interface?
	+ Richard: In this solution, QoS monitoring is a notification but which notification?
	+ Qi: Both.

**Decision**: Noted. A CR to S4aI250042 will be provided.

[S4-250146](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250146.zip) is **noted**.

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| [**S4-250242**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250242.zip) | [AMD-ARCH-MED] Alignment with TS 26.501 CR 103 to include reference point M13 | Dolby Laboratories Inc. |   | Jason Cloud |

**Revisions**: none

**Presenter**: Jason Cloud

**Online Discussion**:

* Frederic: Source to TSG is S4. We should also tick “ME”.
	+ Jason: OK.

**Decision**: Revised. The revision will be agreed without presentation.

[S4-250242](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250242.zip) is **revised to S4-250280**.

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| [**S4-250280**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250280.zip) | [AMD-ARCH-MED] Alignment with TS 26.501 CR 103 to include reference point M13 | Dolby Laboratories Inc. |   | Jason Cloud |

**Decision**: Agreed without presentation.

[S4-250280](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250280.zip) is **revised to S4-250280**.

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| [**S4-2502**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250242.zip)**66** | [AMD-ARCH-MED]Improved QoS support for Media Streaming services | Huawei, HiSilicon, Ericsson |   | Qi Pan |

**Revisions**: none

**Presenter**: Qi Pan

**Online Discussion**:

* Merged version is presented.
* Richard: under clause 5.7.5, added a new flag to indicate that L4S has been enabled.
* Qi: yes, agreeable.

**Decision**:

[S4-250266](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250266.zip) is **agreed**.

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| [**S4-250256**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250242.zip) | Stage-2 Aspects of Network Slicing | Samsung Electronics Co. Ltd |   | Prakash Kolan |

**Revisions**: none

**Presenter**: Prakash Kolan

**Online Discussion**:

* Frederic: We need the CR to be presented to SA.
	+ Thomas: Can you copy the WI Objective here?
	+ Prakash: OK.
* Thomas: Why do we start G.1.0 with 0?
	+ Prakash: OK I will renumber with G.1.1.
	+ Thomas: We also have changes over changes to be deleted.
	+ Thomas: And there is still a clause with Y instead of G.

**Decision**: A revision is needed before we merge it. The revision will be agreed without presentation.

[S4-250256](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250256.zip) is **revised to S4-250277 & is merged to 319 and agreed**.

**S4-250277 is agreed and is merged to S4-250319.**

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| --- | --- | --- | --- | --- |
| [**S4-250258**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250258.zip) | [AMD-ARCH-MED] Stage 2 for Multi-access media delivery | Samsung Electronics Co. Ltd |   | Prakash Kolan |

**Revisions**: none

**Presenter**: Prakash Kolan

**Online Discussion**:

* Frederic: You need to add clause 2 in clauses affected and improve the summary of change using the WI description.

**Decision**: Revised. The revision is agreed without presentation.

[S4-250258](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250258.zip) is **revised to S4-250278**.

**S4-250278 is agreed and is merged to S4-250319.**

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| [**S4-250278**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250278.zip) | [AMD-ARCH-MED] Stage 2 for Multi-access media delivery | Samsung Electronics Co. Ltd |   | Prakash Kolan |

**Decision**: Agreed without presentation.

[S4-250278](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250278.zip) is **agreed**.

## 8.6 FS\_MeMe (Study on Media Messaging)

[*SP-240477*](https://www.3gpp.org/ftp/TSG_SA/TSG_SA/TSGS_103_Maastricht_2024-03/Docs/SP-240477.zip) *SID Study on Media Messaging*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| [**S4-250036**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250036.zip) | [FS\_MeMe] IETF MIMI and 3GPP Messaging | Qualcomm Germany | The text discusses progress in IETF MIMI during the 3GPP TSG-SA4 Meeting #131 in Geneva, proposing changes to 3GPP TS 26.841v1.0.0 related to messaging. The meeting highlighted advancements in More Instant Messaging Interoperability (MIMI) within the IETF framework. The document presented reasons for the proposed changes and concluded with suggestions to enhance messaging standards. The proposal aims to align the 3GPP specifications with the latest developments in IETF MIMI, focusing on enhancing messaging interoperability and content structure. The meeting discussed the use of Concise Binary Object Representation (CBOR) and working towards standardizing messaging formats for improved compatibility across platforms. | Thomas Stockhammer |

**Revisions**: none

**Presenter**: Thomas Stockhammer

**Online Discussion**:

* No comments.

**Decision**: Agreed.

[S4-250036](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250036.zip) is **agreed**.

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| --- | --- | --- | --- | --- |
| [**S4-250038**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250038.zip) | [FS\_MeMe] Time and Work Plan for Media Messaging | Qualcomm Incorporated | The document outlines a proposed time and work plan for Media Messaging Phase 2, focusing on key topics such as integration of TS 26.143 capabilities, support for advanced file formats, DRM and encrypted content, and additional media experiences. It aims to document industry requirements, collaborate with external organizations, and enhance interoperability in Messaging Services. An extension of the timeline is agreed for the completion of work. The study is planned to identify topics for normative work in future releases, with a focus on completion by Rel-19. The document also includes a reminder of preferred meeting days for different working groups. | Thomas Stockhammer |

**Revisions**: none

**Presenter**: Thomas Stockhammer

**Online Discussion**:

* No comments.

**Decision**: Agreed.

[S4-250038](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250038.zip) is **agreed**.

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| --- | --- | --- | --- | --- |
| [**S4-250151**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250151.zip) | [FS\_MeMe] Proposed Updates to TR 26.841 | QUALCOMM Europe Inc. - Spain | Summary: During the 3GPP TSG-SA4 Meeting #131 in Geneva from 17th to 21st Feb 2025, Qualcomm Germany presented a Pseudo-CR proposing updates to 3GPP TS 26.841v1.0.0. The agenda item was **Decision**, focusing on updating the technical report and implementing initial decisions. The proposal suggests changes to the technical specification assuming agreement on [S4-250036](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250036.zip). The meeting aimed to discuss and finalize the proposed updates to enhance the technical aspects covered in the document. The conclusion was positive, urging the team to proceed with the suggested changes. | Thomas Stockhammer |

**Revisions**: none

**Presenter**: Thomas Stockhammer

**Online Discussion**:

* Agreed

**Decision**: Agreed

[S4-250151](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250151.zip) is **agreed**.

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| --- | --- | --- | --- | --- |
| [**S4-250311**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250311.zip) | [FS\_MeMe] Proposed Updates to TR 26.841 | QUALCOMM Europe Inc. - Spain | Summary: During the 3GPP TSG-SA4 Meeting #131 in Geneva from 17th to 21st Feb 2025, Qualcomm Germany presented a Pseudo-CR proposing updates to 3GPP TS 26.841v1.0.0. The agenda item was **Decision**, focusing on updating the technical report and implementing initial decisions. The proposal suggests changes to the technical specification assuming agreement on [S4-250036](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250036.zip). The meeting aimed to discuss and finalize the proposed updates to enhance the technical aspects covered in the document. The conclusion was positive, urging the team to proceed with the suggested changes. | Thomas Stockhammer |

**Decision**: Agreed without presentation

[S4-250311](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250311.zip) is **agreed**.

## 8.7 FS\_AMD (Study on Advanced Media Delivery)

[*SP-240478*](https://www.3gpp.org/ftp/TSG_SA/TSG_SA/TSGS_103_Maastricht_2024-03/Docs/SP-240478.zip) *SID Study on Advanced Media Delivery*

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| [**S4-250016**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250016.zip) | [FS\_AMD] Time and Work Plan for Advanced Media Delivery | Qualcomm Incorporated (Rapporteur) | The text outlines the summary of the 3GPP TSG-SA4 Meeting #131 held in Geneva, Switzerland from 17 to 21 February 2025. The agenda item focused on the time and work plan for Advanced Media Delivery, with objectives including documenting key topics, studying collaboration scenarios, developing deployment architectures, and providing solutions. The study aims to address normative work for Release 19 by completing stage-2 work by December 2024 and stage-3 work by March 2025. The document also highlights guidelines for scheduling meetings and collaborating with external organizations. Various protocols, APIs, and reference points will be enhanced to improve media delivery within the 3GPP framework. | Thomas Stockhammer |

**Revisions**: none

**Presenter**: Thomas Stockhammer

**Online Discussion**:

* No comments.

**Decision**: Agreed.

[S4-250016](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250016.zip) is **agreed**.

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| --- | --- | --- | --- | --- |
| [**S4-250017**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250017.zip) | [FS\_AMD] Selective Unicast Requests in MBS/MBMS | Qualcomm Germany | The text discusses recommendations for stage 2 and 3 normative work based on version 19 of a document related to MBS User Service architecture and eMBMS. Key issues include in-session unicast repair, delivery protocols, and selected MBMS functionalities. Recommendations include addressing gaps identified in clauses, specifying support for functionalities, documenting call flows and procedures, and validating approaches through implementation. Further study is recommended for additional extensions to MBS User Services, with topics including validation of approaches, leveraging enhancements, and studying unsupportive features. Coordination with other working groups and organizations is also advised to validate approaches and ensure achievement of specific functionalities. | Thomas Stockhammer |

**Revisions**: none

**Presenter**: Thomas Stockhammer

**Online Discussion**:

* Rufael: MBS AS overloading with unicast could be a scalability issue.
	+ Richard: Instead of using MBS AS as a proxy, we could use an external reference point.
* Thomas: More work is needed on this topic. We can revise this contribution just indicating future work.

**Decision**:

[S4-250017](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250017.zip) is **merged to S4-250018**.

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| [**S4-250018**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250018.zip) | [FS\_AMD] Generic Application Service | Qualcomm Germany | The text discusses various references related to 5G media streaming and watermarking techniques. It highlights the functionalities available for MBS User Services and recommends addressing specific functionalities for MBS and MBMS in the context of hybrid services. It outlines high-level solutions for handling unicast requests in a hybrid manner. Recommendations are provided for stage 2 and stage 3 normative work, including extensions to MBS User Service protocols and formats. Further study and coordination recommendations are also mentioned for validating approaches and implementing enhancements in collaboration with other groups. The text emphasizes the need for additional study on selected MBMS functionalities and delivery protocols for eMBMS. | Thomas Stockhammer |

**Revisions**:

|  |  |  |
| --- | --- | --- |
| [S4-250018\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250018_BBC.docx) | 14/02/2025 17:52 | 738 KB |

**Presenter**: Thomas Stockhammer

**Online Discussion**:

* \_BBC version presented.
* Richard: You have 3 different potential mechanisms (content steering, …).
	+ Thomas: I believe it is not necessary to do this. It could be a client to app implementation.
* Richard: Because it is a BM-SC function doesn’t mean it is relevant to go forward on this one.
	+ Thomas: We also have MOOD with BM-SC.
	+ Richard: But if this is something that never becomes multicast/broadcast, it makes no sense.
* Rev02 was presented.
	+ Richard: in page 21, figure 5.12.3.4-3, the title should be MBS-AS and MBS-AF. Would you provide another draft?
	+ Thomas: yes. Let’s merge 17 into the revision of 18.
	+ Fred: ok.
	+ Fred: for KI 10, we only retain time synchronisation in stage 2.

**Decision**: to be revised to 342.

[S4-250018](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250018.zip) is **revised to S4-250342**.

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| --- | --- | --- | --- | --- |
| [**S4-250024**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250024.zip) | Overview Slides on Advanced Media Delivery for 5G-MAG | Qualcomm Germany | The text discusses various study items related to advanced media delivery for 5G-MAG, focusing on topics such as the delivery of segmented media objects, common client metadata, multi-CDN and multi-access media delivery, modem usage optimization, DRM and conditional access, in-session unicast repair for MBS object distribution, DASH/HLS interoperability, improved QoS support, impacts and opportunities of QUIC for segmented content delivery, and more. It also addresses the need for enhancements in the media delivery architecture, including support for Background Data Transfer, modem usage optimization, DASH/HLS interoperability, and in-session unicast repair for MBS object distribution. Additionally, the text highlights the importance of collaboration with media organizations and the integration of | Thomas Stockhammer |

**Revisions**: none

**Presenter**: Thomas Stockhammer

**Online Discussion**:

* No comments

**Decision**: Noted.

[S4-250024](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250024.zip) is **noted**.

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| --- | --- | --- | --- | --- |
| [**S4-250028**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250028.zip) | [FS\_AMD] Improvement to DRM and Conditional Access. | QUALCOMM Europe Inc. - Spain | The text discusses the provisions related to references, abbreviations, deployment architectures, and mapping to high-level call flows in the context of 5G Media Streaming. It outlines various components, such as Authorization Server, DASH client, DRM System, License Server, and more, involved in content protection workflows. The document emphasizes the importance of supporting encrypted content in both unicast and multicast/broadcast scenarios, highlighting the need for integrating Content Protection interfaces using standards like CPIX and DASH-IF Interoperability Points. Recommendations are made to support these standards at different reference points and define Content Preparation Templates to configure encryption tasks in the 5GMS Application Server. | Thomas Stockhammer |

**Revisions**:

* https://www.3gpp.org/ftp/tsg\_sa/WG4\_CODEC/TSGS4\_131\_Geneva/Inbox/Drafts/MBS/S4-250028\_BBC.docx

**Presenter**: Thomas Stockhammer

**Online Discussion**:

* BBC version presented.
* Richard: At the beginning, the clause is conflicting with definitions.
	+ Thomas: This is just collecting external information. A new clause heading is OK before the new material.
* Rufael: DRM system is still overloaded. It is confusing in terms of terminology. For example in diagram 5.4.3.5.
	+ Frederic: The client should be included in the DRM system and it is not the case.
* Richard: 26.501 needs only to be fixed.
	+ Thomas: Ok.

**Decision**: Revised. The clause header has to be added and the diagram corrected. The revision will be agreed without presentation.

[S4-250028](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250028.zip) is **revised to S4-250284**.

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| [**S4-250284**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250284.zip) | [FS\_AMD] Improvement to DRM and Conditional Access. | QUALCOMM Europe Inc. - Spain | The text discusses the provisions related to references, abbreviations, deployment architectures, and mapping to high-level call flows in the context of 5G Media Streaming. It outlines various components, such as Authorization Server, DASH client, DRM System, License Server, and more, involved in content protection workflows. The document emphasizes the importance of supporting encrypted content in both unicast and multicast/broadcast scenarios, highlighting the need for integrating Content Protection interfaces using standards like CPIX and DASH-IF Interoperability Points. Recommendations are made to support these standards at different reference points and define Content Preparation Templates to configure encryption tasks in the 5GMS Application Server. | Thomas Stockhammer |

**Decision**: Agreed without presentation.

[S4-250284](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250284.zip) is **agreed**.

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| --- | --- | --- | --- | --- |
| [**S4-250145**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250145.zip) | Update of NOTE for MBS User Service over eMBMS | Huawei, HiSilicon | The text discusses the MBS User Service architecture and protocol within the context of 5G systems, emphasizing separation of user services from transport, service-based architecture, and RESTful APIs. It addresses the interworking between eMBMS and enTV for LTE-based 5G Broadcast, highlighting the need for integration at the User Service level. The document suggests different deployment architectures to allow convergence of user services, ensuring compatibility between MBS and eMBMS delivery methods. Recommendations include specifying support for Joint BM-SC and MBSF Functionality, documenting deployment and client architectures, and validating approaches through implementation. Future enhancements should ensure compatibility and deployment flexibility across delivery methods. | Qi Pan |

**Revisions**: none

**Presenter**: Qi Pan

**Online Discussion**:

* No comments.

**Decision**: Agreed.

[S4-250145](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250145.zip) is **agreed**.

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| [**S4-250209**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250209.zip) | [FS-AMD WT 3b]: Documenting future work with multi-access media delivery | Samsung Electronics Iberia SA | The document discusses future work on multi-access media delivery in the context of 3GPP TSG-SA WG4 Meeting #131, highlighting gaps and recommendations. It emphasizes the need to address aspects that were not sufficiently covered in the Rel-19 study on FS\_AMD, proposing additional topics for future study. Specifically, it identifies gaps in dynamic policy procedures and network assistance procedures in relation to multi-access delivery. The text also touches on the issue of network slice replacement and its impact on multi-access media delivery, suggesting further exploration in future studies. Proposed changes are outlined in a draft CR for consideration at the meeting. | Prakash Kolan |

**Revisions**:

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| --- | --- | --- |
| [S4-250209r01.zip](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250209r01.zip) | 18/02/2025 21:44 | 115,2 KB |
| [S4-250209r01\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250209r01_BBC.docx) | 18/02/2025 23:18 | 72,9 KB |
| [S4-250209\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250209_BBC.docx) | 13/02/2025 13:55 | 72,4 KB |
| [S4-250209\_MBS.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250209_MBS.docx) | 13/02/2025 12:04 | 72,4 KB |

**Presenter**: Prakash Kolan

**Online Discussion**:

* r01\_BBC version presented.
* Prakash: I will convert it into a CR.
* Thomas: Clause 7 is closed. There can be a clash.
	+ Prakash: I will check offline.

**Decision**: Noted. r01\_BBC agreeable but it will be converted in a CR instead of a revision.

[S4-250209](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250209.zip) is **noted**.

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| [**S4-250286**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250286.zip) | Aspects to look into during future study on topic of multi-access media delivery | Samsung Electronics Iberia SA |  | Prakash Kolan |

**Revisions**: none

**Presenter**: Prakash Kolan

**Online Discussion**:

* No comments/questions.

**Decision**:

[S4-250286](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250286.zip) is **agreed**.

## 8.8 FS\_MediaEnergyGREEN (Study on Media enerGy consumption exposuRE and EvaluatioN framework)

[*SP-240481*](https://www.3gpp.org/ftp/TSG_SA/TSG_SA/TSGS_103_Maastricht_2024-03/Docs/SP-240477.zip) *SID Study on Media enerGy consumption exposuRE and EvaluatioN framework*

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| [**S4-250042**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250042.zip) | [FS\_MediaEnergyGREEN] TR 26.942 v1.0.1 | Orange Belgium |  | Julien Lemotheux |

**Revisions**: none

**Presenter**: Julien Lemotheux

**Online Discussion**:

* No comments

**Decision**: Agreed.

[S4-250042](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250042.zip) is **agreed**.

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| --- | --- | --- | --- | --- |
| [**S4-250043**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250043.zip) | [FS\_MediaEnergyGREEN] Conclusions | Orange Belgium | The document discusses a proposed change focusing on Media Energy Consumption in the 5G system, aiming to enhance the accuracy of energy estimation and address challenges related to data accuracy, energy attribution, regulatory pressures, and measurement boundaries. It suggests collecting fine-grained energy consumption data in real-time and proposes a framework for future measurements. The document also presents solutions related to Energy-related Information exposure and monitoring, as well as an evaluation framework. The conclusions highlight the need for normative work to address energy-related information exposure, while no normative work is planned for monitoring and measurement or evaluation framework. | Julien Lemotheux |

**Revisions**:

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| --- | --- | --- |
| [S4-250043r01\_Conclusions.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250043r01_Conclusions.docx) | 18/02/2025 15:11 | 60 KB |
| [S4-250043r02\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250043r02_BBC.docx) | 18/02/2025 21:30 | 64,9 KB |
| [S4-250043r02\_BBC\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250043r02_BBC_BBC.docx) | 18/02/2025 21:37 | 65 KB |
| [S4-250043r02\_Conclusions.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250043r02_Conclusions.docx) | 18/02/2025 17:03 | 60,2 KB |
| [S4-250043\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250043_BBC.docx) | 14/02/2025 12:42 | 56 KB |

**Presenter**: Julien Lemotheux

**Online Discussion**:

* Daniel: Maybe, we could add reference in the conclusion on our 2 new boxes EI collector and client.
	+ Julien: OK
* Qi: What is the plan?
	+ Julien: Close the study and open a new phase 2 study in 2-3 meetings.
	+ Richard: Agree, this could allow us to not be distracted to complete Rel-19 normative work.
* Frederic: This is NIF and not EIF.
	+ Julien: Yes.

**Decision**: Revised to take into consideration online comments and also integrate potential solutions agreed during the meeting.

[S4-250043](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250043.zip) is **revised to S4-250308**.

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| --- | --- | --- | --- | --- |
| [**S4-250308**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250308.zip) | [FS\_MediaEnergyGREEN] Conclusions | Orange Belgium | The document discusses a proposed change focusing on Media Energy Consumption in the 5G system, aiming to enhance the accuracy of energy estimation and address challenges related to data accuracy, energy attribution, regulatory pressures, and measurement boundaries. It suggests collecting fine-grained energy consumption data in real-time and proposes a framework for future measurements. The document also presents solutions related to Energy-related Information exposure and monitoring, as well as an evaluation framework. The conclusions highlight the need for normative work to address energy-related information exposure, while no normative work is planned for monitoring and measurement or evaluation framework. | Julien Lemotheux |

**Revisions**: none

**Presenter**: Julien Lemotheux

**Online Discussion**:

* Richard: solution on QMC could be solution to KI1 as well.
* Julien: ok, ill add that.
* Richard: my edits have disappeared on the future work section.
* Julien: ok, ill re-do this and produce a revision.

**Decision**:

[S4-250308](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250308.zip) is **revised to S4-250333.**

**S4-250333 is agreed**.

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| [**S4-250150**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250150.zip) | Pseudo-CR on potential solution to KI1 based Energy Information Exposure Specification to configure the exposure of the UE, network and other entities energy related information to the UE Application | InterDigital, BBC | The text discusses a proposal for the exposure of energy-related information from various network entities to UE applications, focusing on media energy consumption. The proposal aims to raise awareness of environmental issues by allowing the configuration and exposure of energy information to users. It suggests changes to 3GPP TR 26.942 V1.0.1 to integrate a solution for energy-related information exposure. The document outlines a generic reference architecture for collecting and exposing energy information, detailing the roles and responsibilities of various functions and reference points. It also introduces a potential solution for controlling the exposure of energy information to Application Service Providers. | Erik Reinhard |

**Revisions**:

|  |  |  |
| --- | --- | --- |
| [S4-250150r01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250150r01.docx) | 19/02/2025 12:54 | 471,1 KB |
| [S4-250150\_Qualcomm.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250150_Qualcomm.docx) | 18/02/2025 23:59 | 472,4 KB |

**Presenter**: Erik Reinhard

**Online Discussion**:

* Richard: What are the changes in r01?
	+ Erik: The work configuration has been replaced by specification.
* Prakash: Is the intention to have one provision function?
	+ Erik: Yes.

**Decision**: “Configuration” will be replaced by Specification by the editor. Agreed.

[S4-250150](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250150.zip) is **agreed**.

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| [**S4-250184**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250184.zip) | [FS\_MediaEnergyGREEN]Text reference from French Agency for Ecological Transition (ADEME) | Nokia | The text discusses energy and power consumption in mobile devices during the 3GPP TSG-SA WG4 meeting #131 in Geneva. Referencing a source, it states that the global electricity consumption for smartphones and feature phones in 2020 was estimated to be 17 and 2 units, respectively. This highlights the importance of understanding and managing the energy usage of mobile devices to promote sustainability and efficiency in the telecommunications industry. | Daniel Philip VENMANI |

**Revisions**:

|  |  |  |
| --- | --- | --- |
| [S4-250184r01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250184r01.docx) | 18/02/2025 11:32 | 56,8 KB |
| [S4-250184r02.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250184r02.docx) | 18/02/2025 16:14 | 57,2 KB |
| [S4-250184\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250184_BBC.docx) | 14/02/2025 11:56 | 56,4 KB |

**Presenter**: Daniel Philip VENMANI

**Online Discussion**:

* r02 version presented.
* Richard: “Will have +29% in 2030” has to be corrected, a closing bracket has to be removed, a space is missing and MtCO2e corrected.
	+ Daniel: OK.
* Thomas: Not sure to understand why we need this comparison.
	+ Thorsten: The solution to stop selling mobile phones is not a good message.
	+ Erik: We could delete the comparison.
	+ Thomas: OK.

**Decision**: Revised according to online comments. The revision will be agreed without presentation.

[S4-250184](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250184.zip) is **revised to S4-250294**.

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| [**S4-250294**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250294.zip) | [FS\_MediaEnergyGREEN]Text reference from French Agency for Ecological Transition (ADEME) | Nokia | The text discusses energy and power consumption in mobile devices during the 3GPP TSG-SA WG4 meeting #131 in Geneva. Referencing a source, it states that the global electricity consumption for smartphones and feature phones in 2020 was estimated to be 17 and 2 units, respectively. This highlights the importance of understanding and managing the energy usage of mobile devices to promote sustainability and efficiency in the telecommunications industry. | Daniel Philip VENMANI |

**Decision**: Agreed without presentation.

[S4-250294](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250294.zip) is **agreed**.

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| --- | --- | --- | --- | --- |
| [**S4-250185**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250185.zip) | [FS\_MediaEnergyGREEN]Text reference for Energy Information Function (EIF) | Nokia | The text discusses enhancements to the 5G System for improving energy efficiency and supporting energy saving in the network by collecting and exposing energy consumption information at Network Functions (NFs). Key issues identified include network energy-related information exposure, subscription and policy control for energy efficiency, and 5GS enhancements for network energy saving. The text proposes defining a new network functionality to collect and expose energy-related information, including per application, per UE, and per PDU session. It also delves into defining mobile network energy efficiency according to ETSI standards, clarifying the metrics and methods for assessing energy efficiency in operational networks. The formula for calculating Mobile Network data Energy Efficiency is provided, highlighting the relationship between data volume and energy consumption. | Daniel Philip VENMANI |

**Revisions**:

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| --- | --- | --- |
| [S4-250185r01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250185r01.docx) | 18/02/2025 16:47 | 70,6 KB |
| [S4-250185\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250185_BBC.docx) | 14/02/2025 12:12 | 70,6 KB |

**Presenter**: Daniel Philip VENMANI

**Online Discussion**:

* r01 version presented.
* Prakash: EIF is now available in 23.501. Maybe it is not needed to include all the text and only reference 23.501.
	+ Daniel: Indeed, if change 3 is not needed, a reference could be enough.
	+ Prakash: I would prefer not having the 3rd change.
	+ Richard: I agree with Prakash.
	+ Daniel: It is not annex T of 26.501 but 23.501.
* Erik: Maybe we could have a 4th point indicating “Expose energy information authorized northbound…”
	+ Daniel: OK

**Decision**: Revised according to online comments( 4th bullet, 23.501 reference and 3rd change removed). The revision will be agreed without presentation.

[S4-250185](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250185.zip) is **revised to S4-250293**.

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| [**S4-250293**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250293.zip) | [FS\_MediaEnergyGREEN]Text reference for Energy Information Function (EIF) | Nokia | The text discusses enhancements to the 5G System for improving energy efficiency and supporting energy saving in the network by collecting and exposing energy consumption information at Network Functions (NFs). Key issues identified include network energy-related information exposure, subscription and policy control for energy efficiency, and 5GS enhancements for network energy saving. The text proposes defining a new network functionality to collect and expose energy-related information, including per application, per UE, and per PDU session. It also delves into defining mobile network energy efficiency according to ETSI standards, clarifying the metrics and methods for assessing energy efficiency in operational networks. The formula for calculating Mobile Network data Energy Efficiency is provided, highlighting the relationship between data volume and energy consumption. | Daniel Philip VENMANI |

**Decision**: Agreed without presentation.

[S4-250293](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250293.zip) is **agreed**.

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| [**S4-250186**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250186.zip) | [FS\_MediaEnergyGREEN]Energy Efficiency and Application software Programming | Nokia | The text discusses the importance of energy efficiency in application software programming, particularly in relation to smartphone usage and data centers. It highlights findings from a study ranking programming languages based on energy consumption, with compiled languages like C, Rust, and C++ being the most energy-efficient, while interpreted languages such as Python and Ruby are less efficient. Factors influencing energy efficiency include compilation vs. interpretation, low-level control, memory usage, execution time, and optimization techniques. Developers are encouraged to consider energy efficiency alongside other factors, with the choice of programming language impacting energy consumption significantly. The document proposes including the discussed content in TR 26.942 for further discussion and potential implementation in SA4. | Daniel Philip VENMANI |

**Revisions**: none

**Presenter**: Daniel Philip VENMANI

**Online Discussion**:

* Alexis: This is a little misleading. Different compilers have different performances. If you haven’t documented that this is not relevant.
	+ Frederic: The target platform is also an important parameter.
* Richard: I am not sure what actionable specific change we can make with this contribution.
	+ Daniel: It is for discussion.
* Emmanuel: If we look at media processing, part is done using hardware. We don’t recommend documenting this as it is not applicable.
* Frederic: If we add certainties, we could recommend something. But that is beyond our scope in SA4.
	+ Richard: This could be submitted to the SA plenary for education.
* Alexis: Additional point, some languages are using libraries like Go. It is not included in the estimation here.

**Decision**: Noted

[S4-250186](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250186.zip) is **noted**.

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| [**S4-250188**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250188.zip) | [FS\_MediaEnergyGREEN]Solution #7: Potential solution to Key Issue #1: UE energy metrics abstraction | Nokia, Interdigital, BBC, Orange | The text discusses the proposal of a Candidate Solution to address Key Issue #1 related to energy consumption in network optimization. It suggests the abstraction of UE energy-related information to benefit service adjustments for third parties without revealing internal UE properties. The proposed index value represents a relative measure unique to each UE, considering factors like battery capacity, supply, and consumption rate. However, further research is required to identify APIs for obtaining energy-related data and validate the exposed information's accuracy. The solution also outlines procedures for reporting the metric to external entities. Overall, this abstract index enables tracking energy consumption without disclosing specific UE details to external parties. | Daniel Philip VENMANI |

**Revisions**:

|  |  |  |
| --- | --- | --- |
| [S4-250188r01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250188r01.docx) | 18/02/2025 11:24 | 196,9 KB |
| [S4-250188r02.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250188r02.docx) | 18/02/2025 16:06 | 197 KB |
| [S4-250188r03.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250188r03.docx) | 19/02/2025 17:14 | 196,3 KB |
| [S4-250188r04.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250188r04.docx) | 19/02/2025 17:33 | 196,5 KB |
| [S4-250188r04\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250188r04_BBC.docx) | 19/02/2025 20:40 | 196,3 KB |
| [S4-250188r05.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250188r05.docx) | 20/02/2025 5:49 | 197,6 KB |
| [S4-250188r06.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250188r06.docx) | 20/02/2025 7:10 | 198 KB |
| [S4-250188\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250188_BBC.docx) | 14/02/2025 12:32 | 195,2 KB |

**Presenter**: Daniel Philip VENMANI

**Online Discussion**:

* r02 version presented.
* Shilin: We are unclear how this is used to improve energy efficiency.
	+ Daniel: This solution doesn’t provide a solution for interoperability. It is only to have relative estimation.
* Emmanuel: A phone is not emitting carbon. What is it supposed to reflect?
	+ Richard: Maybe we should delete carbon emission in the last bullet and just add on the UE.
* Thomas: In the 1st bullet, what is only upon user consent?
	+ Richard: “Only” needs to move before “while” and “and” added before “upon”.
	+ Thorsten: Would be good to have clarity about user consent.
	+ Richard: We can delete “only upon user consent”.
* Thomas: Does the index stay in the UE?
	+ Richard: This is a step by step issue. This is only a metric definition.
	+ Frederic: OK. Consent should be part of the exposure, it is not relevant here.
* Thomas (during washup): The way it is defined is not implementable. Can we indicate this?
	+ Richard: Every manufacturer writes its own spec.So you can define how you want to implement.
	+ Thomas: It only talks about processing, not the modem or the front end for example. Not sure if this is included or not.
	+ Richard: The modem does some processing and that consumes energy.
	+ Frederic: Can we be explicit in what we want in the TR? Like:
		- 3GPP will not specify this index atleast during this release.
		- Implementers will define their own implementation of the index.
	+ Thomas: Maybe we can say this solution is not a candidate for normative work.
	+ Frederic: Let’s be explicit, like there is no intention to define this index in normative work. Online edit adding a last sentence : “There is no intent to specify this index normatively in 3GPP specifications.”

**Decision**: Revised based on r06 and online comments. The revision will be agreed without presentation.

[S4-250188](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250188.zip) is **revised to S4-250324**.

**S4-250324 is agreed.**

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| [**S4-250324**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250324.zip) | [FS\_MediaEnergyGREEN]Solution #7: Potential solution to Key Issue #1: UE energy metrics abstraction | Nokia, Interdigital, BBC, Orange | The text discusses the proposal of a Candidate Solution to address Key Issue #1 related to energy consumption in network optimization. It suggests the abstraction of UE energy-related information to benefit service adjustments for third parties without revealing internal UE properties. The proposed index value represents a relative measure unique to each UE, considering factors like battery capacity, supply, and consumption rate. However, further research is required to identify APIs for obtaining energy-related data and validate the exposed information's accuracy. The solution also outlines procedures for reporting the metric to external entities. Overall, this abstract index enables tracking energy consumption without disclosing specific UE details to external parties. | Daniel Philip VENMANI |

**Decision**: Agreed without presentation.

[S4-250324](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250324.zip) is **agreed**.

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| [**S4-250189**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250189.zip) | [FS\_MediaEnergyGREEN]Solution #8: Potential solution to Key Issue #2: UE application energy consumption measurement based on MTD technique | Nokia | The text discusses a Candidate Solution that focuses on measuring UE application energy consumption using the Month-Till-Date (MTD) technique. MTD provides a method for tracking and analyzing performance indicators, specifically in this case, monitoring the battery consumption of apps on UE devices. The solution involves calculating MTD, determining battery consumption per session, and evaluating battery usage per hour. The text highlights the limitations of the proposed solution, such as potential impacts from various energy-consuming aspects and device-specific evaluations. It also mentions the procedures for reporting the metric from the UE to an external entity. | Daniel Philip VENMANI |

**Revisions**:

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| [S4-250189r01.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250189r01.docx) | 19/02/2025 7:38 | 252,1 KB |
| [S4-250189\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250189_BBC.docx) | 14/02/2025 12:33 | 260,1 KB |

**Presenter**: Daniel Philip VENMANI

**Online Discussion**:

* r01 version presented.
* Richard: It is estimating on a long term average. The term is depending on the position day in the month, this is not a sliding window.
	+ Daniel: I agree.
* Qi: What is the motivation to define this metric?
	+ Daniel: Have information on how our services are impacting the battery.
* Thomas: The summary is only about limitations.
	+ Frederic: What is put in procedures should be added at the beginning of the summary except the last sentence.
	+ Thomas: It is for an app, not for 3GPP.

**Decision**: Revised according to r01 and online comments. The revision will be agreed without presentation.

[S4-250189](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250189.zip) is **revised to S4-250299**.

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| [**S4-250299**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250299.zip) | [FS\_MediaEnergyGREEN]Solution #8: Potential solution to Key Issue #2: UE application energy consumption measurement based on MTD technique | Nokia | The text discusses a Candidate Solution that focuses on measuring UE application energy consumption using the Month-Till-Date (MTD) technique. MTD provides a method for tracking and analyzing performance indicators, specifically in this case, monitoring the battery consumption of apps on UE devices. The solution involves calculating MTD, determining battery consumption per session, and evaluating battery usage per hour. The text highlights the limitations of the proposed solution, such as potential impacts from various energy-consuming aspects and device-specific evaluations. It also mentions the procedures for reporting the metric from the UE to an external entity. | Daniel Philip VENMANI |

**Decision**: Agreed without presentation.

[S4-250299](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250299.zip) is **agreed**.

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| [**S4-250208**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250208.zip) | [FS\_MediaEnergyGREEN]: Clarifications and additions to Solution #5 on exposure of energy related information | Samsung Electronics Iberia SA |  | Prakash Kolan |

**Revisions**:

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| --- | --- | --- |
| [S4-250208\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250208_BBC.docx) | 14/02/2025 12:35 | 294,8 KB |
| [S4-250208\_BBC\_BBC.docx](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Inbox/Drafts/MBS/S4-250208_BBC_BBC.docx) | 17/02/2025 21:44 | 802,1 KB |

**Presenter**: Prakash Kolan

**Online Discussion**:

* Daniel: We have 2 terms: UE energy information and UE-related energy information.
	+ Prakash: One is coming from SA2.
* Frederic: This has to be revised as a pCR.

**Decision**: Revised.

[S4-250208](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250208.zip) is **revised to S4-250302**.

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| [**S4-250302**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250302.zip) | [FS\_MediaEnergyGREEN]: Clarifications and additions to Solution #5 on exposure of energy related information | Samsung Electronics Iberia SA |  | Prakash Kolan |

**Revisions**: none

**Presenter**: Prakash Kolan

**Online Discussion**:

* Julien: Remaining editor’s note will be removed or converted in a note.

**Decision**: Agreed.

[S4-250302](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250302.zip) is **agreed**.

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| [**S4-250246**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250246.zip) | [FS\_MediaEnergyGREEN] TR 26.942 v1.0.2 | Orange Belgium |   | Julien Lemotheux |

**Revisions**: none

**Presenter**: Julien Lemotheux

**Online Discussion**:

* No comments.

**Decision**: Agreed.

[S4-250246](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250246.zip) is **agreed**.

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| [**S4-250292**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250292.zip) | [FS\_MediaEnergyGREEN] TR 26.942 v1.1.0 | Orange Belgium |   | Julien Lemotheux |

**Revisions**: none

**Decision**: Not presented. Goes to plenary

[S4-250292](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250292.zip) **goes to the closing plenary**.

## 8.9 Other Rel-19 matters including TEI

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| [S4-250030](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250030.zip) | Improved MBS/MBMS Operation with Modern Media Players | QUALCOMM Europe Inc. - Spain | Error processing document | Thomas Stockhammer |

**Revisions**: none

**Presenter**: Thomas Stockhammer

**Online Discussion**:

* No comments.

**Decision**: Noted.

[S4-250030](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250030.zip) is **noted**.

## 8.10 Review of the future work plan (next meeting dates, hosts)

See time plans

## 8.11 Any Other Business

### 8.11.1 Input documents

None.

### 8.11.2 Report

Report is made available in S4-250405.

### 8.11.3 Summary from Offline Discussions

none

### 8.11.4 Output documents

See TDOC list in Annex C.

## 8.12 Close of the session

The chairman thanked the participants and the minute takers. The participants thanked the chairman.

The online session was closed on February 20, 2025 at 10:31.

# Annex A Attendees

* 40 F2F
* 2 online

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **TITLE** | **Family Name** | **Given Name** | **Employer Organization** | **Presence** |
| Mrs. | Abdelhafez | Nada | SHURE Europe GmbH |  |
| Dr. | Abdoli | Mohsen | Xiaomi Technology Germany GmbH | F2F |
| Dr. | Ahsan | Saba | Nokia Corporation | F2F |
| Mr. | AUMONT | FRANCK | InterDigital France R&D, SAS | Online |
| Mr. | Borella | Sharath Chandra | CEWiT |  |
| Dr. | Bouazizi | Imed | Qualcomm Incorporated | F2F |
| Dr. | Bradbury | Richard | BBC | F2F |
| Mrs. | Brekalo | Andrijana | ETSI |  |
| Dr. | Bruhn | Stefan | Dolby Sweden AB |  |
| Dr. | Budagavi | Madhukar | Samsung Research America |  |
| Mr. | Burdinat | Christophe | ATEME | F2F |
| Mr. | Burman | Bo | Ericsson LM |  |
| Ms. | CHAKRABARTI | SAMITA | Verizon UK Ltd |  |
| Mr. | Champel | Mary-Luc | Beijing Xiaomi Mobile Software | F2F |
| Mr. | Chen | Ben | BJTU |  |
| Dr. | Chen | Lulin | MediaTek Inc. |  |
| Mr. | Cheng | Hong | Qualcomm Incorporated |  |
| Dr. | Chizhov | Ilya | HUAWEI TECHNOLOGIES Co. Ltd. |  |
| Miss | chong | vivian | VIVO MOBILE COMMUNICATION IBER |  |
| Dr. | Cloud | Jason | Dolby Laboratories Inc. | F2F |
| Mr. | Ding | Shilin | Qualcomm Incorporated | F2F |
| Mr. | Doehla | Stefan | Fraunhofer IIS |  |
| Mr. | Dong | Wang | vivo Mobile Communication Co., |  |
| Dr. | Ehara | Hiroyuki | Panasonic Holdings Corporation |  |
| Dr. | Engel | Isaac | HUAWEI TECH. GmbH |  |
| Mr. | FILOCHE | Thierry | InterDigital France R&D, SAS |  |
| Mr. | Fontaine | Loic | InterDigital France R&D, SAS |  |
| Ing. | Fotopoulou | Eleni | Fraunhofer IIS |  |
| Mr. | Gabin | Frederic | Dolby France SAS | F2F |
| Mr. | Gao | Shuai | China Unicom |  |
| Mr. | Gauntlett | Simon | Dolby Germany GmbH | F2F |
| Mr. | Gibellino | Diego | TELECOM ITALIA S.p.A. |  |
| Mr. | Gudumasu | Srinivas | InterDigital Communications | F2F |
| Mrs. | Guede | Celine | InterDigital France R&D, SAS |  |
| Dr. | GUILLOTEL | Philippe | InterDigital France R&D, SAS |  |
| Mr. | Gül | Serhan | Nokia Germany |  |
| Mr. | Hämäläinen | Matti | Nokia Corporation |  |
| Dr. | Hamza | Ahmed | InterDigital Canada | F2F |
| Dr. | Harada | Noboru | NTT |  |
| Dr. | he | chaofan | Pengcheng laboratory | F2F |
| Dr. | He | Xuan (Shane) | Nokia Germany | F2F |
| Dr. | Holub | Jan | Mesaqin.com s.r.o (Ltd.) |  |
| Dr. | HU | James | AT&T |  |
| Mr. | Huang | Chuanzeng | Douyin |  |
| Mr. | Hynonen | Olli | Ericsson LM |  |
| Dr. | Illahi | Gazi Karam | Nokia Corporation | F2F |
| Mr. | Inoue | Yoshihiro | NTT | F2F |
| Mr. | Jansson Toftgård | Tomas | Ericsson LM |  |
| Dr. | Jelinek | Milan | VoiceAge Corporation |  |
| Mr. | Jiao | Jerry | CALTTA |  |
| Miss | ke | xiaowan | vivo Mobile Communication Co., |  |
| Dr. | Kentgens | Maximilian | HEAD acoustics GmbH |  |
| Mrs. | Kim | Jeeyoung | LG Electronics UK | F2F |
| Dr. | Kolan | Prakash | Samsung Research America | F2F |
| Mr. | Kroon | Bart | Philips International B.V. |  |
| Mr. | Kwon | WooSuk | LG Electronics Inc. | F2F |
| Mr. | Laaksonen | Lasse | Nokia Corporation |  |
| Dr. | Lee | Brian | Dolby Germany GmbH | F2F  |
| Dr. | Lee | Hakju Ryan | Samsung R&D Institute UK | F2F |
| Dr. | Lei | Yixue | Tencent |  |
| Mr. | Lemotheux | Julien | Orange | F2F |
| Mr. | Leung | Nikolai | Qualcomm Germany |  |
| Mr. | Li | Lei | Huawei Technologies France |  |
| Ms. | Li | Pengyu | China Telecommunications |  |
| Mr. | LI | Xiaoqiang | Cybercore |  |
| Dr. | Liangping | Ma | Qualcomm Austria RFFE GmbH |  |
| Mr. | Lintervo | Arvi | Nokia Corporation |  |
| Dr. | Litwic | Lukasz | Ericsson LM |  |
| Dr. | Lohmar | Thorsten | Ericsson LM | F2F |
| Dr. | Lu | Jonathan | FCC |  |
| Mr. | Ma | Ruitao | China Unicom |  |
| Mr. | Mangion | Mathieu | ETSI |  |
| Mrs. | Martin-Cocher | Gaelle | InterDigital, Europe, Ltd. | F2F |
| Dr. | Mate | Sujeet | Nokia Corporation |  |
| Dr. | Mekuria | Rufail | Huawei Technologies France | F2F |
| Dr. | Moriya | Takehiro | NTT |  |
| Mr. | Multrus | Markus | Fraunhofer IIS |  |
| Mr. | Nagisetty | Srikanth | Panasonic Holdings Corporation |  |
| Mr. | NAKAMURA | Kazuo | NICT |  |
| Mr. | Negalaguli | Harish | Motorola Solutions UK Ltd. |  |
| Mr. | Norvell | Erik | Ericsson LM |  |
| Mr. | Onno | Stephane | InterDigital France R&D, SAS |  |
| Mr. | Outters | Jan | ATEME |  |
| Mr. | Pajunen | Lauros | Nokia Corporation |  |
| Dr. | Pan | Qi | HUAWEI TECHNOLOGIES Co. Ltd. | F2F |
| Mr. | Potetsianakis | Emmanouil | Beijing Xiaomi Mobile Software | F2F |
| Mr. | Ragot | Stephane | Orange |  |
| Miss | Ramazanirend | Elmira | VODAFONE Group Plc |  |
| Mr. | Rämö | Anssi | Nokia Corporation |  |
| Dr. | Regateiro | Joao | InterDigital France R&D, SAS |  |
| Mr. | Reimes | Jan | HEAD acoustics GmbH |  |
| Dr. | Reinhard | Erik | InterDigital France R&D, SAS | F2F |
| Dr. | Ricard | Julien | Tencent | F2F |
| Mr. | Schaefer | Ralf | InterDigital France R&D, SAS | F2F |
| Mr. | Schevciw | Andre | Qualcomm Technologies Int |  |
| Dr. | Sodagar | Iraj | Dolby Germany GmbH | online |
| Mr. | Son | Jangwoo | Fraunhofer HHI |  |
| Dr. | Song | Jaeyeon | Samsung Electronics Co., Ltd | F2F |
| Mr. | Stefano | Faccin | QUALCOMM Europe Inc. - Italy |  |
| Mr. | Stegenborg-Andersen | Tore | FORCE Technology |  |
| Dr. | Stockhammer | Thomas | Qualcomm Germany | F2F |
| Dr. | Stoica | Razvan-Andrei | Motorola Mobility Germany GmbH | online |
| Dr. | Su | Huan-yu | HuaWei Technologies Co., Ltd | F2F |
| Dr. | Sun | June | Bytedance |  |
| Mr. | sun | zhao | HUAWEI TECHNOLOGIES Co. Ltd. |  |
| Dr. | Szczerba | Marek | Philips International B.V. |  |
| Mr. | Szucs | Paul | Sony Europe B.V. | F2F |
| Dr. | Tech | Gerhard | Fraunhofer HHI |  |
| Mr. | Teniou | Gilles | Tencent | F2F |
| Mr. | Thomas | Emmanuel | Beijing Xiaomi Mobile Software | F2F |
| Dr. | Tourapis | Alexandros | Apple GmbH | F2F |
| Dr. | Tripathi | Girish Chandra | Tejas Network Limited |  |
| Mr. | Tyagi | Rishabh | Dolby Laboratories Inc. |  |
| Dr. | VENMANI | Daniel Philip | Nokia France | F2F |
| Mr. | Wang | Bin | Beijing Xiaomi Mobile Software |  |
| Ms. | Wang | Dan | China Mobile Com. Corporation |  |
| Mr. | Wang | Zhe | HUAWEI TECHNOLOGIES Co. Ltd. |  |
| Mr. | wang | zhi | Beijing Xiaomi Mobile Software |  |
| Mr. | Wu | Nien | Beijing Xiaomi Mobile Software |  |
| Miss | Xu | Jiayi | China Mobile Com. Corporation |  |
| Dr. | Yang | ChiaHsin | MediaTek Inc. |  |
| Mr. | Ye | Xuzhou | Bytedance |  |
| Mr. | Yip | Eric | Samsung Electronics Co., Ltd | F2F |
| Dr. | Zhang | Amy | vivo Mobile Communication Co., |  |
| Miss | Zhang | Juan | Qualcomm Korea |  |
| Mr. | Zhang | Kefeng | Qualcomm Incorporated |  |
| Mr. | Zhang | Yajun | Tencent |  |
| Dr. | Zhang | Yongjing | HUAWEI TECHNOLOGIES Co. Ltd. |  |
| Dr. | ZHENG | Jianhua | Pengcheng laboratory | F2F |
| Dr. | Zia | Waqar | Apple Switzerland AG | F2F |

# Annex B – Final Tdoc allocation

**Legend for Tdocs:**

* **Color: not-yet processed**, **processed**, **late**, **~~withdrawn~~**, **moved to a different A.I.**, **under email agreement, postponed, agreed in SWG, output document.**
* a agreed, e endorsed, app approved, n noted, pa partially agreed, np not pursued, pp postponed…

|  |  |  |
| --- | --- | --- |
| A.I.# | Agenda Item | Tdoc # |
| 8 | Multicast-Broadcast-Streaming (MBS) SWG |  |
| 8.1 | Opening of the session, registration of documents |  |
| 8.2 | IPR and antitrust reminder |  |
| 8.3 | Reports/Liaisons from other groups/meetings | MBS timing: 275n (SA2), 279n (RAN2) |
| 8.4 | Release 18 and earlier matters | 26.510: 097a, 060a26.346: 029->325a, 057a&059->261a26.512: 061a26.517: 062a26.143: 048a26.117: 049a~~058~~ |
| 8.5 | Stage 2 for Advanced Media Delivery (AMD-ARCH-MED) | TP: 023a26.501: 129->262m(->319), 022->263->270m(->319), 021->264m (->319), 146n, 266m(->319), 218n, 103->267->312m(->319), 256->277m(->319), 258->278m(->319), 31926.502: 026->271a, 020->330a, 019->326aWIS: 027->281LS: 106->34326.506: 242->280a |
| 8.6 | FS\_MeMe (Study on Media Messaging) | TP: 038a26.841: 036a, 151a, 311a |
| 8.7 | FS\_AMD (Study on Advanced Media Delivery) | TP: 016a26.802: 017m (->342), 018->342, 145a,26.804: 209n, 286a, 028->284a, 291->323->338a5G-MAG: 024n |
| 8.8 | FS\_MediaEnergyGREEN (Study on Media enerGy consumption exposuRE and EvaluatioN framework) | 26.942: 042a (TR1.0.1)246a (TR1.0.2)184->294a 185->293a208->302a150a188->324a189->299a186n043->308->333a292 (TR 1.1.0)~~079, 147~~ |
| 8.9 | Other Rel-19 matters including TEI | 26.347: 030n |
| 8.10 | Review of the future work plan (next meeting dates, hosts) |  |
| 8.11 | Any Other Business |  |
| 8.12 | Close of the session |  |
| 11 | LSs received during the meeting and Postponed Liaisons (from A. I. 5) |  |
| 12 | Reports and general issues from sub-working-groups |  |
| 12.1 | Audio SWG |  |
| 12.2 | MBS SWG | 405, Tdoc status transfer |
| 12.3 | Video SWG |  |
| 12.4 | RTC SWG |  |
| 13 | Release 18 and earlier matters | 26.510: 097, 06026.512: 06126.517: 06226.143: 04826.117: 04926.346: 325, 057&261 |
| 14 | Release 19 Features |  |
| 14.1 | IVAS\_Codec\_Ph2 (EVS Codec Extension for Immersive Voice and Audio Services, Phase 2) | Progress: 20% -> xx% (09/25) |
| 14.2 | ATIAS\_Ph2 (Terminal Audio quality performance and Test methods for Immersive Audio Services, Phase 2) | Progress: 5% -> xx% (09/25) |
| 14.3 | DaCAS (Diverse audio CApturing System for UEs) | Progress: 0% -> xx% (09/25) |
| 14.4 | Stage 2 for Advanced Media Delivery (AMD-ARCH-MED) | 26.501: 31926.502: 271, 330, 32626.506: 280LS: 343WIS: 281Progress: 0% -> (100)% (03/25) |
| 14.5 | VOPS (Video Operating Points - Harmonization and Stereo MV-HEVC) | Progress: 45% -> xx% (06/25) |
| 14.6 | SR\_IMS (Split rendering over IMS) | Progress: 45% -> xx% (06/25) |
| 14.7 | 5G\_RTP\_Ph2 (5G Real-time Transport Protocol Configurations, Phase 2) | Progress: 0% -> xx% (09/25) |
| 15 | Study Items |  |
| 15.1 | FS\_ACAPI (Study on Audio Codec APIs) | Progress: 20% -> xx% (06/25) |
| 15.2 | FS\_MeMe (Study on Media Messaging) | 26.841: 311TP: 038Progress: 60% -> (65%) (03/25->06/25) |
| 15.3 | FS\_AMD (Study on Advanced Media Delivery) | 26.802: 342, 14526.804: 286, 284, 338Progress: 75% -> (100%) (03/25) |
| 15.4 | FS\_MediaEnergyGREEN (Study on Media enerGy consumption exposuRE and EvaluatioN framework) | 26.942: 292Progress: 60% -> (100%) (03/25) |
| 15.5 | FS\_AI4Media (Feasibility Study on Artificial Intelligence (AI) and Machine Learning (ML) for Media) | Progress: 82% -> xx% (06/25) |
| 15.6 | FS\_AVATAR (Feasibility Study on Avatars for Real-Time Communication) | Progress: 60% -> xx% (03/25) |
| 15.7 | FS\_Beyond2D (Study on Beyond 2D Video) | Progress: 28% -> xx% (06/25) |
| 15.8 | FS\_HapticsMedia (Study on Haptics in 5G Media Services) | Progress: 60% -> xx% (03/25) |
| 15.9 | FS\_ARSpatial (Study on Spatial Computing for AR Services) | Progress: 25% -> xx% (06/25) |
| 15.10 | FS\_iRTCW\_Ph2 (Study on immersive Real-Time Communication for WebRTC, Phase 2) | Progress: 15% -> xx% (06/25) |
| 16 | Work Items and Study Items under the responsibility of other TSGs/WGs impacting SA4 work |  |
| 17 | New Work / New Work Items and Study Items |  |
| 17.1 | New Work Items and Study Items for Rel-20 5G-Advanced | FS\_ULBC: 086->138, 087, 179FS\_QVideo-MED: 178FS\_CH\_LL-Video-MED: 232, 233244,~~127~~ |
| 17.2 | New Study Items for Rel-20 FS\_6G Planning |  |
| 17.3 | Other | AMD\_PRO-MED: 025->XXXAvCall: 092FSQMD: 128 |
| 18 | Postponed issues |  |
| 19 | Review of the future work plan (next meeting dates, hosts) | MBS SWG * March 20 2025, 15:30 – 17:30 CET online, Host Qualcomm (Submission Deadline March 19, noon CET)
 |
| 20 | Any Other Business |  |
| 21 | Close of meeting: Friday 21st February 2025 at 16:00 hours local time (at the latest) |  |

# Annex C - SWG Tdoc status

## C.1 Agree or endorsed (not presented to SA4 plenary)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **TDoc** | **Title** | **Source** | **Agenda item** | **AI Plenary** | **TDoc Status** | **Is revision of** | **Revised to** |
| [**S4-250016**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250016.zip) | [FS\_AMD] Time and Work Plan for Advanced Media Delivery | Qualcomm Incorporated (Rapporteur) | 8.7 |   | agreed | [**S4aI250010**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1634173) |  |
| [**S4-250017**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250017.zip) | [FS\_AMD] Selective Unicast Requests in MBS/MBMS | Qualcomm Germany | 8.7 |   | merged | [**S4aI250024**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1634397) |  |
| [**S4-250023**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250023.zip) | [AMD-ARCH-MED] Time and Work Plan for Stage 2 for Advanced Media Delivery | Qualcomm Incorporated (Rapporteur) | 8.5 |   | agreed | [**S4aI250063**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1638471) |  |
| [**S4-250036**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250036.zip) | [FS\_MeMe] IETF MIMI and 3GPP Messaging | Qualcomm Germany | 8.6 |   | agreed | [**S4-241875**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1626129) |  |
| [**S4-250042**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250042.zip) | [FS\_MediaEnergyGREEN] TR 26.942 v1.0.1 | Orange Belgium | 8.8 |   | agreed |  |  |
| [**S4-250057**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250057.zip) | [PMA-MBS\_Ext, TEI17] XML corrections | BBC, Ateme | 8.4 |   | agreed | [**S4aI250047**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1637255) |  |
| [**S4-250150**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250150.zip) | Pseudo-CR on potential solution to KI1 based Energy Information Exposure Specification to configure the exposure of the UE, network and other entities energy related information to the UE Application | InterDigital, BBC | 8.8 |   | agreed | [**S4aI250054**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1638278) |  |
| [**S4-250151**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250151.zip) | [FS\_MeMe] Proposed Updates to TR 26.841 | QUALCOMM Europe Inc. - Spain | 8.6 |   | agreed |  |  |
| [**S4-250246**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250246.zip) | [FS\_MediaEnergyGREEN] TR 26.942 v1.0.2 | Orange Belgium | 8.8 |   | agreed |  |  |
| [**S4-250262**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250262.zip) | Editorial improvements for TS 26.501 | Huawei, HiSilicon, BBC | 8.5 |   | merged | [**S4-250129**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1647742) |  |
| [**S4-250264**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250264.zip) | [AMD-ARCH-MED] Common Client Metadata | Qualcomm Germany | 8.5 |   | merged | [**S4-250021**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1640922) |  |
| [**S4-250266**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250266.zip) | [AMD-ARCH-MED] Improved QoS support for Media Streaming services | Huawei, HiSilicon, Ericsson | 8.5 |   | merged | [**S4aI250042**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1634720) |  |
| [**S4-250270**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250270.zip) | [AMD-ARCH-MED] Distributing encrypted and high-value content | Qualcomm Germany | 8.5 |   | merged | [**S4-250263**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1648878) |  |
| [**S4-250277**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250277.zip) | Stage-2 Aspects of Network Slicing | Samsung Electronics Co. Ltd. | 8.5 |   | merged | [**S4-250256**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1648745) |  |
| [**S4-250278**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250278.zip) | [AMD-ARCH-MED] Stage 2 for Multi-access media delivery | Samsung Electronics Co. Ltd., Dolby France SAS, BBC | 8.5 |   | merged | [**S4-250258**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1648747) |  |
| [**S4-250293**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250293.zip) | [FS\_MediaEnergyGREEN]Text reference for Energy Information Function (EIF)  | Nokia | 8.8 |   | agreed | [**S4-250185**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1648319) |  |
| [**S4-250294**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250294.zip) | [FS\_MediaEnergyGREEN]Text reference from French Agency for Ecological Transition (ADEME) | Nokia | 8.8 |   | agreed | [**S4-250184**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1648318) |  |
| [**S4-250299**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250299.zip) | [FS\_MediaEnergyGREEN]Solution #8: Potential solution to Key Issue #2: UE application energy consumption measurement based on MTD technique | Nokia  | 8.8 |   | agreed | [**S4-250189**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1648323) |  |
| [**S4-250302**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250302.zip) | [FS\_MediaEnergyGREEN]: Clarifications and additions to Solution #5 on exposure of energy related information | Samsung Electronics Iberia SA | 8.8 |   | agreed | [**S4-250208**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1648350) |  |
| [**S4-250312**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250312.zip) | [AMD-ARCH-MED] Media delivery from multiple service endpoints/locations | Dolby Laboratories Inc. | 8.5 |   | merged | [**S4-250267**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1648892) |  |
| [**S4-250324**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250324.zip) | [FS\_MediaEnergyGREEN]Solution #7: Potential solution to Key Issue #1: UE energy metrics abstraction  | Nokia, Interdigital, BBC, Orange | 8.8 |   | agreed | [**S4-250188**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1648322) |  |
| [**S4-250333**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250333.zip) | [FS\_MediaEnergyGREEN] Conclusions | Orange Belgium | 8.8 |   | agreed | [**S4-250308**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649139) |  |

## C.2 Agreed (presented to SA4 plenary)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **TDoc** | **Title** | **Source** | **Agenda item** | **AI Plenary** | **TDoc Status** | **Is revision of** | **Revised to** |
| [**S4-250038**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250038.zip) | [FS\_MeMe] Time and Work Plan for Media Messaging | Qualcomm Incorporated | 8.6 | 15.2 | agreed | [**S4-242116**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1627914) |  |
| [**S4-250048**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250048.zip) | Correction to xHE-AAC codecs parameter, AMR and EVS capability and media type signalling syntax | Dolby Laboratories Inc., Fraunhofer IIS | 8.4 | 13 | agreed | [**S4aI250056**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1638464) |  |
| [**S4-250049**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250049.zip) | Correction to HE-AAC and xHE-AAC stereo mapping to DASH adaptation set | Dolby Laboratories Inc., Fraunhofer IIS | 8.4 | 13 | agreed | [**S4aI250055**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1638463) |  |
| [**S4-250060**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250060.zip) | [5GMS\_Pro\_Ph2] Explicit deactivation of Dynamic Policy in client API | BBC | 8.4 | 13 | agreed | [**S4aI250003**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1634074) |  |
| [**S4-250061**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250061.zip) | [5GMS3, TEI18] Align OpenAPI YAML with normative description | BBC | 8.4 | 13 | agreed |  |  |
| [**S4-250062**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250062.zip) | [5MBP3, TEI18] Tighten data type of service-class query parameter | BBC | 8.4 | 13 | agreed | [**S4aI250005**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1634081) |  |
| [**S4-250097**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250097.zip) | [5GMS\_Pro\_Ph2] Editorial correction | Nokia | 8.4 | 13 | agreed | [**S4aI250006**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1634161) |  |
| [**S4-250145**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250145.zip) | Update of NOTE for MBS User Service over eMBMS | Huawei, HiSilicon | 8.7 | 15.3 | agreed |  |  |
| [**S4-250261**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250261.zip) | [PMA-MBS\_Ext, TEI18] XML corrections | BBC, Ateme | 8.4 | 13 | agreed | [**S4-250059**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1644547) |  |
| [**S4-250280**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250280.zip) | [AMD-ARCH-MED] Alignment with TS 26.501 CR 103 to include reference point M13 | Dolby Laboratories Inc. | 8.5 | 14.4 | agreed | [**S4-250242**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1648423) |  |
| [**S4-250284**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250284.zip) | [FS\_AMD] Improvement to DRM and Conditional Access. | QUALCOMM Europe Inc. - Spain | 8.5 | 15.3 | agreed | [**S4-250028**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1640930) |  |
| [**S4-250286**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250286.zip) | Aspects to look into during future study on topic of multi-access media delivery | Samsung Electronics Co. Ltd. | 8.7 | 15.3 | agreed |  |  |
| [**S4-250311**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250311.zip) | TR 26.841 v1.1.0: Media Messaging Enhancements | QUALCOMM Europe Inc. - Spain | 8.6 | 15.2 | agreed |  |  |
| [**S4-250330**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250330.zip) | [AMD-ARCH-MED] MBS User Service and Delivery Protocols for eMBMS | Qualcomm Incorporated | 8.5 | 14.4 | agreed | [**S4-250020**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1640921) |  |
| [**S4-250338**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250338.zip) | [FS\_AMD] Update to multiple service location media delivery recommendations for stage 3 | Dolby Laboratories Inc., Qualcomm | 8.7 | 15.3 | agreed | [**S4-250323**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649213) |  |

## C.3 Other status (not presented to SA4 plenary)

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **TDoc** | **Title** | **Source** | **Agenda item** | **AI Plenary** | **TDoc Status** | **Is revision of** | **Revised to** |
| [**S4-250018**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250018.zip) | [FS\_AMD] Generic Application Service | Qualcomm Germany | 8.7 |   | revised | [**S4aI250033**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1634544) | [**S4-250342**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649241) |
| [**S4-250019**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250019.zip) | [AMD-ARCH-MED] Selected MBMS Functionalities not supported in MBS | Qualcomm Germany | 8.5 |   | revised | [**S4aI250057**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1638465) | [**S4-250326**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649221) |
| [**S4-250020**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250020.zip) | [AMD-ARCH-MED] MBS User Service and Delivery Protocols for eMBMS | Qualcomm Germany | 8.5 |   | revised | [**S4aI250060**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1638468) | [**S4-250330**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649225) |
| [**S4-250021**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250021.zip) | [AMD-ARCH-MED] Common Client Metadata | Qualcomm Germany | 8.5 |   | revised | [**S4aI250061**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1638469) | [**S4-250264**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1648887) |
| [**S4-250022**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250022.zip) | [AMD-ARCH-MED] Distributing encrypted and high-value content | Qualcomm Germany | 8.5 |   | revised | [**S4aI250062**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1638470) | [**S4-250263**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1648878) |
| [**S4-250024**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250024.zip) | Overview Slides on Advanced Media Delivery for 5G-MAG | Qualcomm Germany | 8.7 |   | noted | [**S4aI250064**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1638475) |  |
| [**S4-250026**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250026.zip) | [AMD-ARCH-MED] In-session Unicast Repair for MBS Object Distribution | Qualcomm Germany, BBC | 8.5 |   | revised | [**S4aI250068**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1640613) | [**S4-250271**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649028) |
| [**S4-250027**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250027.zip) | [AMD-ARCH-MED] Work Item Summary for Stage 2 for Advanced Media Delivery | QUALCOMM Europe Inc. - Spain | 8.5 |   | revised |  | [**S4-250281**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649067) |
| [**S4-250028**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250028.zip) | [FS\_AMD] Improvement to DRM and Conditional Access. | QUALCOMM Europe Inc. - Spain | 8.5 |   | revised |  | [**S4-250284**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649084) |
| [**S4-250029**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250029.zip) | Improved Time Synchronization for MBMS | QUALCOMM Europe Inc. - Spain | 8.4 |   | revised |  | [**S4-250325**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649220) |
| [**S4-250030**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250030.zip) | Improved MBS/MBMS Operation with Modern Media Players | QUALCOMM Europe Inc. - Spain | 8.9 |   | noted |  |  |
| [**S4-250043**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250043.zip) | [FS\_MediaEnergyGREEN] Conclusions | Orange Belgium | 8.8 |   | revised |  | [**S4-250308**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649139) |
| S4-250058 | [PMA-MBS\_Ext, TEI18] XML corrections | BBC, Ateme | 8.4 |   | withdrawn | [**S4aI250047**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1637255) |  |
| [**S4-250059**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250059.zip) | [PMA-MBS\_Ext, TEI17] XML corrections | BBC, Ateme | 8.4 |   | revised |  | [**S4-250261**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1648872) |
| S4-250079 | Pseudo-CR on potential solution to KI1 based Energy Information Exposure Specification to configure the exposure of the UE, network and other entities energy related information to the UE Application | InterDigital Pennsylvania | 8.8 |   | withdrawn | [**S4aI250054**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1638278) |  |
| [**S4-250103**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250103.zip) | [AMD-ARCH-MED] Media delivery from multiple service endpoints/locations | Dolby Laboratories Inc. | 8.5 |   | revised | [**S4aI250067**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1640606) | [**S4-250267**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1648892) |
| [**S4-250106**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250106.zip) | [AMD-ARCH-MED] Draft LS on Advanced Media Delivery | QUALCOMM Europe Inc. - Spain | 8.5 |   | revised |  | [**S4-250343**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649243) |
| [**S4-250129**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250129.zip) | Editorial improvements for TS 26.501 | Huawei, HiSilicon | 8.5 |   | revised | [**S4aI250026**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1634426) | [**S4-250262**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1648874) |
| [**S4-250146**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250146.zip) | [AMD-ARCH-MED] Update of Improved QoS support for Media Streaming services | Huawei, HiSilicon | 8.5 |   | noted |  |  |
| [**S4-250147**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250147.zip) | Pseudo-CR on potential solution to KI1 based Energy Information Exposure Specification to configure the exposure of the UE, network and other entities energy related information to the UE Application | InterDigital Pennsylvania | 8.8 |   | withdrawn | [**S4aI250054**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1638278) |  |
| [**S4-250184**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250184.zip) | [FS\_MediaEnergyGREEN]Text reference from French Agency for Ecological Transition (ADEME) | Nokia | 8.8 |   | revised |  | [**S4-250294**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649110) |
| [**S4-250185**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250185.zip) | [FS\_MediaEnergyGREEN]Text reference for Energy Information Function (EIF)  | Nokia | 8.8 |   | revised |  | [**S4-250293**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649109) |
| [**S4-250186**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250186.zip) | [FS\_MediaEnergyGREEN]Energy Efficiency and Application software Programming | Nokia | 8.8 |   | noted |  |  |
| [**S4-250188**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250188.zip) | [FS\_MediaEnergyGREEN]Solution #7: Potential solution to Key Issue #1: UE energy metrics abstraction  | Nokia, Interdigital, BBC, Orange | 8.8 |   | revised | [**S4aI250050**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1637706) | [**S4-250324**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649214) |
| [**S4-250189**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250189.zip) | [FS\_MediaEnergyGREEN]Solution #8: Potential solution to Key Issue #2: UE application energy consumption measurement based on MTD technique | Nokia  | 8.8 |   | revised |  | [**S4-250299**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649124) |
| [**S4-250208**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250208.zip) | [FS\_MediaEnergyGREEN]: Clarifications and additions to Solution #5 on exposure of energy related information | Samsung Electronics Iberia SA | 8.8 |   | revised |  | [**S4-250302**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649131) |
| [**S4-250209**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250209.zip) | [FS-AMD WT 3b]: Documenting future work with multi-access media delivery  | Samsung Electronics Iberia SA | 8.7 |   | noted |  |  |
| [**S4-250218**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250218.zip) | [AMD-ARCH-MED] Review of 5G and 5GMS Terminology | Dolby Laboratories Inc. | 8.5 |   | noted | [**S4aI250049**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1637549) |  |
| [**S4-250242**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250242.zip) | [AMD-ARCH-MED] Alignment with TS 26.501 CR 103 to include reference point M13 | Dolby Laboratories Inc. | 8.5 |   | revised |  | [**S4-250280**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649066) |
| [**S4-250256**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250256.zip) | Stage-2 Aspects of Network Slicing | Samsung Electronics Co. Ltd. | 8.5 |   | revised | [**S4-242153**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1628388) | [**S4-250277**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649060) |
| [**S4-250258**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250258.zip) | [AMD-ARCH-MED] Stage 2 for Multi-access media delivery | Samsung Electronics Co. Ltd., Dolby France SAS, BBC | 8.5 |   | revised | [**S4aI250036**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1634581) | [**S4-250278**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649063) |
| [**S4-250263**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250263.zip) | [AMD-ARCH-MED] Distributing encrypted and high-value content | Qualcomm Germany | 8.5 |   | revised | [**S4-250022**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1640923) | [**S4-250270**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649027) |
| [**S4-250267**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250267.zip) | [AMD-ARCH-MED] Media delivery from multiple service endpoints/locations | Dolby Laboratories Inc. | 8.5 |   | revised | [**S4-250103**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1647692) | [**S4-250312**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649146) |
| [**S4-250271**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250271.zip) | [AMD-ARCH-MED] In-session Unicast Repair for MBS Object Distribution | Qualcomm Germany, BBC | 8.5 |   | revised | [**S4-250026**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1640927) | [**S4-250389**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649323) |
| [**S4-250275**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250275.zip) | Reply LS on Time Synchronization for MBS | SA2 | 8.3 |   | noted |  |  |
| [**S4-250279**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250279.zip) | Reply LS on Time Synchronization for MBS | RAN2 | 8.3 |   | noted |  |  |
| [**S4-250291**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250291.zip) | [FS\_AMD] Update to multiple service location media delivery recommendations for stage 3 | Dolby Laboratories Inc. | 8.7 |   | revised |  | [**S4-250323**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649213) |
| [**S4-250308**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250308.zip) | [FS\_MediaEnergyGREEN] Conclusions | Orange Belgium | 8.8 |   | revised | [**S4-250043**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1643080) | [**S4-250333**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649229) |
| [**S4-250323**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250323.zip) | [FS\_AMD] Update to multiple service location media delivery recommendations for stage 3 | Dolby Laboratories Inc., Qualcomm | 8.7 |   | revised | [**S4-250291**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649102) | [**S4-250338**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649237) |
| [**S4-250326**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250326.zip) | [AMD-ARCH-MED] MBS Time Synchronization | Qualcomm Incorporated, Ericsson, BBC | 8.5 |   | revised | [**S4-250019**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1640920) | [**S4-250390**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649324) |
| [**S4-250355**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250355.zip) | Experimental results on the data burst duration for XR split rendering  | Qualcomm India Pvt Ltd | 8.9 |   | revised | [**S4-250064**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1645277) | [**S4-250377**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649297) |
| [**S4-250377**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250377.zip) | Experimental results on the data burst duration for XR split rendering | Qualcomm India Pvt Ltd | 8.9 |   | revised | [**S4-250355**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649268) | [**S4-250392**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1650137) |
| [**S4-250389**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250389.zip) | [AMD-ARCH-MED] In-session Unicast Repair for MBS Object Distribution | Qualcomm Germany, BBC | 8.5 |   | available | [**S4-250271**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649028) |  |
| [**S4-250390**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250390.zip) | [AMD-ARCH-MED] MBS Time Synchronization | Qualcomm Incorporated, Ericsson, BBC | 8.5 |   | available | [**S4-250326**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649221) |  |
| [**S4-250392**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250392.zip) | Experimental results on the data burst duration for XR split rendering | Qualcomm India Pvt Ltd | 8.9 |   | available | [**S4-250377**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1649297) |  |

## C.4 Other status (presented to SA4 plenary)

|  |  |  |  |  |  |  |  |
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| **TDoc** | **Title** | **Source** | **Agenda item** | **AI Plenary** | **TDoc Status** | **Is revision of** | **Revised to** |
| [**S4-250292**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250292.zip) | [FS\_MediaEnergyGREEN] TR 26.942 v1.1.0 | Orange Belgium | 8.8 | 15.4 | available |  |  |
| [**S4-250325**](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_131_Geneva/Docs/S4-250325.zip) | Improved Time Synchronization for MBMS | Qualcomm Incorporated, Ericsson | 8.4 | 13 | available | [**S4-250029**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1640931) |  |

1. **Frédéric Gabin**

 E-mail: frederic.gabin@dolby.com

 Tel (mobile): +33 678 44 85 75

 Mailing Address: Dolby France, 18 rue de Londres, 75009 Paris, France [↑](#footnote-ref-1)