**Third Generation Partnership Project (3GPP™)**

**DRAFT Meeting Report  
for  
TSG SA WG4**

**SA4#108-e (Electronic Meeting)**

**2020-04-02 to 2020-04-09**

**Version: 0.0.2**

**Date: May 09,2020**

Contents:

2 Approval of the agenda and registration of documents 4

3 IPR and antitrust reminder 4

4 Approval of previous meeting report 6

5 Reports/Liaisons from other groups/meetings 7

5.1 SA4 SWG ad hoc meetings 7

5.2 Other 3GPP groups 10

5.3 Other groups 11

6 Issues for immediate consideration 16

7 Enhanced Voice Service (EVS) SWG 16

7.1 Opening of the session 17

7.2 Registration of documents 17

7.3 CRs to Features in Release 15 and earlier 17

7.4 CRs to completed features in Release 16 17

7.5 Liaisons with other groups/meetings 17

7.6 IVAS\_Codec (EVS Codec Extension for Immersive Voice and Audio Services) 17

7.7 New Work / New Work Items and Study Items 18

7.8 Any Other Business 18

7.9 Close of the session 18

8 Multicast-Broadcast-Streaming (MBS) SWG 18

8.1 Opening of the session 19

8.2 Registration of documents 19

8.3 Reports/Liaisons from other groups/meetings 19

8.4 Issues for immediate consideration 19

8.5 CRs to features in Release 15 and earlier 19

8.6 CRs to completed features in Release 16 19

8.7 5GMS3 (5G Media Streaming stage 3) 23

8.8 FS\_5GMS\_Multicast (Feasibility Study on Multicast Architecture Enhancements for 5GMSA) 27

8.9 FS\_XRTraffic (Feasibility Study on Typical Traffic Characteristics for XR Services and other Media) 27

8.10 FS\_EMSA (Feasibility Study on Streaming Architecture extensions For Edge processing) 28

8.11 New Work / New Work Items and Study Items 28

8.12 Others including TEI 28

8.13 Review of the future work plan (next meeting dates, hosts) 28

8.14 Any Other Business 28

8.15 Close of the session 28

9 Speech Quality (SQ) SWG 28

9.1 Opening of the session 28

9.2 Registration of documents 28

9.3 Liaison Statements 28

9.4 CRs to Features in Release 15 and earlier, and other contributions on terminal acoustics 28

9.5 ATIAS (Terminal Audio quality performance and Test methods for Immersive Audio Services) 29

9.6 HaNTE (Handsets Featuring Non-Traditional Earpieces) 29

9.7 ANTeM (Ambient noise test methodology for evaluation of acoustic UE performance) 30

9.8 Joint sessions of SQ SWG with other SWGs 30

9.9 New Work / New Work Items and Study Items 30

9.10 Output Documents from the SQ SWG session to the SA4 Plenary 30

9.11 Any Other Business 30

9.12 Close of the session 30

10 Video SWG 30

10.1 Opening of the session 30

10.2 Registration of documents 30

10.3 Reports and liaisons from other groups 30

10.4 CRs to Features in Release 15 and earlier 30

10.5 CRs to completed features in Release 16 30

10.6 FS\_VR\_CoGui (Feasibility Study on VR Streaming Conformance and Guidelines) 30

10.7 FS\_5GVideo (Feasibility Study on 5G Video Codec Characteristics) 30

10.8 New Work / New Work Items and Study Items 32

10.9 Liaisons and Liaison Responses 32

10.10 Any Other Business 32

10.11 Close of the session 32

11 Multimedia Telephony Service for IMS (MTSI) SWG 32

11.1 Opening of the session 33

11.2 Registration of documents 33

11.3 Reports and liaisons from other groups 33

11.4 CRs to Features in Release 15 and earlier 33

11.5 CRs to completed features in Release 16 33

11.6 E\_FLUS (Enhancements to Framework for Live Uplink Streaming) 33

11.7 ITT4RT (Support of Immersive Teleconferencing and Telepresence for Remote Terminals) 37

11.8 FS\_FLUS\_NBMP (Feasibility Study on the use of NBMP in E\_FLUS) 39

11.9 Others including TEI 39

11.10 New Work / New Work Items and Study Items 40

11.11 Any Other Business 40

11.12 Close of the session 40

12 LSs received during the meeting and Postponed Liaisons (from A. I. 5) 40

13 Reports and general issues from sub-working-groups 40

13.1 EVS SWG 40

13.2 MBS SWG 40

13.3 MTSI SWG 41

13.4 SQ SWG 41

13.5 Video SWG 41

14 CRs to Features in Release 15 and earlier 42

15 Release 16 Features 42

15.1 CAPIF4xMB (Usage of CAPIF for xMB API) 42

15.2 SerInter (Service Interactivity) 42

15.3 Alt\_FX\_EVS (Alternative EVS implementation using updated fixed-point basic operators) 42

15.4 E\_FLUS (Enhancements to Framework for Live Uplink Streaming) 42

15.5 HLG\_HDR (Hybrid Log Gamma High Dynamic Range) 42

15.6 E2E\_DELAY (Media Handling Aspects of RAN Delay Budget Reporting in MTSI) 42

15.7 5G\_MEDIA\_MTSI\_ext (Media Handling Extensions for 5G Conversational Services) 42

15.8 CHEM (Coverage and Handoff Enhancements for Multimedia) 42

15.9 MC\_XMB (MCData File Distribution support over xMB) 42

15.10 EVS\_FCNBE (EVS Floating-point Conformance for Non Bit-Exact) 42

15.11 5GMSA (5G Media streaming architecture) 42

15.12 5GMS3 (5G Media Streaming stage 3) 42

15.13 VRQoE (VR QoE metrics) 44

15.14 RTCPVer (RTP/RTCP Verification for Real-Time Services) 44

15.15 DAHOE (Support of Hybrid DASH/HLS over eMBMS) 44

15.16 HaNTE (Handsets Featuring Non-Traditional Earpieces) 44

15.17 TEI16 and any other Rel-16 documents 44

16 Release 17 Features 44

16.1 IVAS\_Codec (EVS Codec Extension for Immersive Voice and Audio Services) 44

16.2 ITT4RT (Support of Immersive Teleconferencing and Telepresence for Remote Terminals) 44

16.3 ATIAS (Terminal Audio quality performance and Test methods for Immersive Audio Services) 44

16.4 ANTeM (Ambient noise test methodology for evaluation of acoustic UE performance) 44

16.5 TEI17 and any other Rel-17 documents 44

17 Study Items 44

17.1 FS\_5GMS\_Multicast (Feasibility Study on Multicast Architecture Enhancements for 5GMSA) 44

17.2 FS\_XRTraffic (Feasibility Study on Typical Traffic Characteristics for XR Services and other Media) 45

17.3 FS\_EMSA (Feasibility Study on Streaming Architecture extensions For Edge processing) 45

17.4 FS\_VR\_CoGui (Feasibility Study on VR Streaming Conformance and Guidelines) 45

17.5 FS\_5GVideo (Feasibility Study on 5G Video Codec Characteristics) 45

17.6 FS\_FLUS\_NBMP (Feasibility Study on the use of NBMP in E\_FLUS) 46

18 Work Items and Study Items under the responsibility of other TSGs/WGs impacting SA4 work 46

19 New Work / New Work Items and Study Items 46

20 Postponed issues 46

21 Review of the future work plan (next meeting dates, hosts) 46

22 Any Other Business 47

23 Close of meeting: Thursday April 9th, at 17:00 hours CEST (at the latest) 47

Annex A: Contribution documents and status 48

A1: List of TDocs 48

A2: Tdoc decision timing 53

Annex B: List of change requests 57

Annex C: Lists of liaisons 58

C1: Incoming liaison statements 58

C2: Outgoing liaison statements 58

Annex D: List of agreed/approved new and revised Work Items 59

Annex E: List of draft Technical Specifications and Reports 60

## 2 Approval of the agenda and registration of documents

**S4-200501 Agenda for the Electronic Meeting SA4#108-e**

*Type: agenda For: Approval  
 Source: SA4 Chairman (Ericsson)*

**Discussion:**

The SA4 Chairman approved the agenda over the official SA4 Email reflector (3GPP\_TSG\_SA\_WG4@list.etsi.org) at the start of the meeting on 2nd April 00:0015 hours.

The Chairman extended a warm welcome to the delegates to the meeting.

**Decision:** The document was **approved**.

**S4-200527 Guidelines for SA4#108-e as Electronic Meeting**

*Type: other For: Information  
 Source: SA WG4 Chairman, Vice-chairmen, Secretary and SWG chairmen*

**Discussion:**

This document contains the general guidelines to be followed for participation in the SA4#108-e (Electronic Meeting).

It is to be noted that, 6 email exploders were used for this meeting:

a. 3GPP\_TSG\_SA\_WG4 – Main reflector announcements at the WG level

b. 3GPP\_TSG\_SA\_WG4\_SQ – email reflector for SQ SWG related Agenda Items

c. 3GPP\_TSG\_SA\_WG4\_MTSI – email reflector for MTSI SWG related Agenda Items

d. 3GPP\_TSG\_SA\_WG4\_MBS – email reflector for MBS SWG related Agenda Items

e. 3GPP\_TSG\_SA\_WG4\_EVS – email reflector for EVS SWG related Agenda Items

f. 3GPP\_TSG\_SA\_WG4\_VIDEO – email reflector for EVS Video related Agenda Items

The document is for information of the participating member companies and was Noted over official SA4 email reflector at the opening of the meeting on 2nd April 2020 at 00:15 hrs.

**Decision:** The document was **noted**.

**S4-200547 Invitation Links (GTM) to the SA4#108-e Meeting from April 06-09,2020**

*Type: other For: Information  
 Source: 3GPP MCC*

**Discussion:**

This document contains list of invitation links. Delegates should use those links to connect to telcos 6-9 April.

This is provided for information

**Decision:** The document was **noted**.

## 3 IPR and antitrust reminder

|  |
| --- |
| The attention of the delegates to the meeting of this Technical Specification Group is 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 are asked to take note that they are thereby invited:  - to investigate whether their organization or any other organization owns IPRs which are, or are 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 Statement and the Licensing declaration forms (http://webapp.etsi.org/Ipr/). |

**Statement regarding competition law**

|  |
| --- |
| *The attention of the delegates to the meeting is drawn to the fact that 3GPP activities are subject to antitrust and competition laws and that compliance with said laws is therefore required by any participant of the meeting, including the Chairman and Vice-Chairmen and are invited to seek any clarification needed with their legal counsel.*  *The present meeting would be conducted with strict impartiality and in the interests of 3GPP.*  *Delegates are reminded that timely submission of work items in advance of TSG/WG meetings is important to allow for full and fair consideration of such matters.* |

**Statement Regarding Engagement with Companies Added to the U.S. Export Administration Regulations (EAR) Entity List in 3GPP Activities**

https://www.3gpp.org/about-3gpp/legal-matters

|  |
| --- |
| *(2019-06-03, updated 2019-08-20, replaced 2019-10-10)*  **1. Public Information is Not Subject to EAR**  3GPP is an open platform where all contributions (including technology protected or not by patent) made by the different Individual Members under the membership of each respective Organizational Partner are publicly available. Indeed, contributions by all and any Individual Members are uploaded to a public file server when received and then the documents are effectively in the public domain.  In addition, since membership of email distribution lists is open to all, documents and emails distributed by that means are considered to be publicly available.  As a result, information contained in 3GPP contributions, documents, and emails distributed at 3GPP meetings or by 3GPP email distribution lists, because it is made available to the public without restrictions upon its further dissemination, is not subject to the export restrictions of the EAR.  Meeting minutes are maintained for 3GPP meetings. Such meeting minutes for 3GPP meetings are made available to the public without restrictions upon its further dissemination. As a result, information, including information conveyed orally, contained in 3GPP meetings is not subject to the export restriction of the EAR; this would include information conveyed during side meetings that may occur during the main meetings, if these meetings are open to any participants and the results of all said meetings are publicly available without restrictions upon their further dissemination.  **2. Non-Public Information**  Non-public information refers to the information not contained or not intended to be contained in 3GPP contributions, documents or emails. Such non-public information may be disclosed during informal meetings, exchanges, discussions or any form of other communication outside the 3GPP meetings and email distribution lists, and may be subject to the EAR.  **3. Other Information**  Certain encryption software controlled under the International Traffic in Arms Regulations (ITAR), even if publicly available, may still be subject to US export controls other than the EAR.  **4. Conduct of Meetings**  The situation should be considered as "business as usual" during all the meetings called by 3GPP.  **5. Responsibility of Individual Members**  It should be remembered that contributions, meetings, exchanges, discussions or any form of other communication in or outside the 3GPP meetings are of the accountability, integrity and the responsibility of each Individual Member. In addition, Individual Members remain responsible for ensuring their compliance with all applicable export control regulations, including but not limited to EAR.  Individual Members with questions regarding the impact of laws and regulations on their participation in 3GPP should contact their companies’ legal counsels. |

## 4 Approval of previous meeting report

**S4-200502 Draft report of SA4#107 held in Wroclaw**

*Type: report For: Decision  
 Source: 3GPP MCC*

**Abstract:**

This is the draft MCC report for the last meeting SA4#107 at Wroclaw.

**Discussion:**

The SA4 Chairman sent a mail seeking approval of the SA4#107 report from MCC. As no comments were received by 3 Apr 0900 hrs, the same was approved over the official SA4 email reflector.

**Decision:** The document was **revised to S4-200677**.

**S4-200677 Draft report of SA4#107 held in Wroclaw**

*Type: report For: Decision  
 Source: 3GPP MCC*

(Replaces S4-200502)

**Decision:** The document was **approved**.

## 5 Reports/Liaisons from other groups/meetings

### 5.1 SA4 SWG ad hoc meetings

**S4-200515 Draft Report for MTSI SWG 11 Feb 2020 Teleconference #4 on ITT4RT**

*Type: report For: Approval  
 Source: MTSI SWG Chair*

**Abstract:**

The schedule of this teleconference on ITT4RT which was held on Feb 26,2020 was decided during the SA#107 closing plenary. This tele-conference deliberated on the following:

1. To update the existing document for inclusion of use cases, architecture / call flows.

2. Use of Viewport Margins for Bandwidth Adaptation, and

3. Enhancing RTCP Feedback with high-level metrics.

**Discussion:**

The SA4 Chairman sent a mail seeking approval of the tele-conference report. As no comments were received by 3 Apr 0900 hrs, the same was approved over the official SA4 email reflector.

**Decision:** The document was **approved**.

**S4-200516 Draft Report for MTSI SWG 26 Feb 2020 Teleconference #2 on RTCPVer**

*Type: report For: Approval  
 Source: MTSI SWG Chair*

**Abstract:**

The schedule of this teleconference which was held on Feb 26,2020 was decided during the SA#107 closing plenary. The topic of the dicussion was RTCPVer. This telco was given rights to confer on the required decisions to be taken by the SWG. The following are the excerpts:

The following are the excerpts:

1. 3 pCRs to TS 26.139 were agreed (one with slight modifications) to be included into the updated version of TS 26.139 for presentation to SA#87 for approval.

2. Draft WI summary received by SWG was endorsed for submission to SA#87

3. Draft LS to CT1 was agreed.

**Discussion:**

The SA4 Chairman sent a mail seeking approval of the tele-conference report. As no comments were received by 3 Apr 0900 hrs, the same was approved over the official SA4 email reflector.

**Decision:** The document was **approved**.

**S4-200517 Draft Report for MTSI SWG 20 March 2020 Teleconference #5 on ITT4RT**

*Type: report For: Approval  
 Source: MTSI SWG Chair*

**Abstract:**

This schedule of this tele-conference on March 20, 2020 was decided in the closing plenary of SA4#107 to discuss the following agenda:

Update permanent document to include use cases, architecture / call flows, requirements, potential solutions, and working assumptions. The contributions on Viewport Control Signalling for Viewport Sharing/Following and RTCP Traffic were agreed with modifications. The updates to Potential Solution on Overlays was agreed after revisions.

**Discussion:**

The SA4 Chairman sent a mail seeking approval of the tele-conference report. As no comments were received by 3 Apr 0900 hrs, the same was approved over the official SA4 email reflector.

**Decision:** The document was **approved**.

**S4-200518 Draft Report for MTSI-MBS SWG 23 Mar 2020 Teleconference #12 on E\_FLUS**

*Type: report For: Approval  
 Source: MTSI SWG Chair*

**Abstract:**

This intial schedule of this tele-conference on March 12, 2020 (then, re-scheduled to March 23, 2020) was decided in the closing plenary of SA4#107 to discuss and agreement on the additional contirbutions to E\_FLUS (FLUS F-C Stage 3). This agreed document has been serving as a baseline CR to TS 26.238.

**Discussion:**

The SA4 Chairman sent a mail seeking approval of the tele-conference report. As no comments were received by 3 Apr 0900 hrs, the same was approved over the official SA4 email reflector.

**Decision:** The document was **approved**.

**S4-200581 Report of SA4 SQ SWG conf. call on HaNTE (3rd March 2020)**

*Type: report For: Approval  
 Source: SA4 SQ SWG interim Chairman*

**Abstract:**

The schedule of this tele-conference on March 03, 2020 was decided in the closing plenary of SA4#107 to discuss the proposal of an initial plan for data collection in support of the work item on Handsets Featuring Non-Traditional Earpieces (HaNTE), approved at SA#86.

**Discussion:**

The SA4 Chairman sent a mail seeking approval of the tele-conference report. As no comments were received by 3 Apr 0900 hrs, the same was approved over the official SA4 email reflector.

**Decision:** The document was **approved**.

**S4-200582 Report of MBS SWG ad-hoc telco on FS\_TyTrac (31st January 2020)**

*Type: report For: Approval  
 Source: SA4 MBS SWG Chairman*

**Abstract:**

The schedule of this 'tele-conference with special rights' (on Jan 31, 2020) was decided at the closing plenary of SA4#107 to deliberate on the Draft TR 26.925 titled, 'Typical traffic characteristics of media services on 3GPP networks' (Release 16). The same was agreed during the call and sent to the subsequent SA#87-e for approval.

**Discussion:**

The SA4 Chairman sent a mail seeking approval of the tele-conference report. As no comments were received by 3 Apr 0900 hrs, the same was approved over the official SA4 email reflector.

**Decision:** The document was **approved**.

**S4-200583 Report of SA4 MBS SWG Telco on 5GMS3 (6th February 2020)**

*Type: report For: Approval  
 Source: SA4 MBS SWG Chairman*

**Abstract:**

The schedule of this tele-conference (on Feb 06, 2020) was decided at the closing plenary of SA4#107 to

● Review and agree draft CRs to TS 26.511 on 5GMS profiles, codecs and formats

● Review and agree draft CRs to TS 26.512 on 5GMS protocols

**Discussion:**

The SA4 Chairman sent a mail seeking approval of the tele-conference report. As no comments were received by 3 Apr 0900 hrs, the same was approved over the official SA4 email reflector.

**Decision:** The document was **approved**.

**S4-200584 Report of SA4 MBS SWG Telco on 5GMS3 (13th February 2020)**

*Type: report For: Approval  
 Source: SA4 MBS SWG Chairman*

**Abstract:**

The schedule of this 'tele-conference with special rights' (on Feb 13, 2020) was decided at the closing plenary of SA4#107 to

• Review and agree draft CRs to TS 26.511 on 5GMS profiles, codecs and formats

• Review and agree draft CRs to TS 26.512 on 5GMS protocols

• Decision power to agree TS 26.512 V1.0.0 for presentation for information at SA#87 which was conferred.

**Discussion:**

The SA4 Chairman sent a mail seeking approval of the tele-conference report. As no comments were received by 3 Apr 0900 hrs, the same was approved over the official SA4 email reflector.

**Decision:** The document was **approved**.

**S4-200585 Report of SA4 MBS SWG Telco on 5GMS3 (12th March 2020)**

*Type: report For: Approval  
 Source: SA4 MBS SWG Chairman*

**Abstract:**

The schedule of this tele-conference (on Mar 12, 2020) was decided at the closing plenary of SA4#107 to

• Review and agree draft CRs to TS 26.511 on 5GMS profiles, codecs and formats

• Review and agree draft CRs to TS 26.512 on 5GMS protocols

**Discussion:**

The SA4 Chairman sent a mail seeking approval of the tele-conference report. As no comments were received by 3 Apr 0900 hrs, the same was approved over the official SA4 email reflector.

**Decision:** The document was **approved**.

**S4-200586 Report of SA4 MBS SWG Telco on 5GMS3 (27th March 2020)**

*Type: report For: Approval  
 Source: SA4 MBS SWG Chairman*

**Abstract:**

The schedule of this tele-conference (on Mar 12, 2020) was decided at the closing plenary of SA4#107 to

• Review and agree draft CRs to TS 26.511 on 5GMS profiles, codecs and formats

• Review and agree draft CRs to TS 26.512 on 5GMS protocols

**Discussion:**

The SA4 Chairman sent a mail seeking approval of the tele-conference report. As no comments were received by 3 Apr 0900 hrs, the same was approved over the official SA4 email reflector.

**Decision:** The document was **approved**.

**S4-200614 (reserved)**

*Type: other For: discussion  
 Source: Video SWG Chairman*

**Decision:** The document was **withdrawn**.

**S4-200615 (reserved)**

*Type: other For: discussion  
 Source: Video SWG Chairman*

**Decision:** The document was **not treated**.

### 5.2 Other 3GPP groups

**S4-200526 Brief report from SA#87-e on SA4 matters**

*Type: report For: Information  
 Source: SA4 Chairman (Ericsson)*

**Abstract:**

Report on SA4 matters from SA#87-e

**Discussion:**

The SA4 Chairman sent a mail on Apr 02, 2020 forenoon, seeking approval of the report. As no comments were received by 3 Apr 0900 hrs, the same was noted over the official SA4 email reflector.

Qualcomm: For information wrt to this document and specifically with respect to slide 4: “TD SP 200049 was revised to SP 200263 TS 26.117 5G Media Streaming (5GMS); Speech and Audio Profiles, v2.0.1 (Release 16) for editorial modifications.The bugfixes were predominantly wrong references as well as the cover page said Technical Report instead of Technical Specification and thanked the MCC for spotting and fixing them.

**Decision:** The document was **noted**.

**S4-200530 Reply LS on support for eCall over NR**

*Type: LS in For: Action  
 Original outgoing LS: -, to -, cc -  
 Source: TSG SA*

**Abstract:**

This LS is regarding to find any limitation either from performance or regulatory perspective to support eCall over IMS (NG-eCall) over NR.

TSG SA believes that the changes required in order to allow support for eCall over IMS (NG-eCall) over NR are mini

**Discussion:**

The SA4 Chairman sent a mail on Apr 02, 2020 forenoon, seeking approval of the report. As no comments were received by 3 Apr 0900 hrs, the same was noted over the official SA4 email reflector.

**Decision:** The document was **noted**.

**S4-200532 LS on support for eCall over NR**

*Type: LS in For: Action  
 Original outgoing LS: -, to -, cc -  
 Source: SA WG2*

**Abstract:**

In Release 14, support for eCall was extended from the CS domain to eCall in IMS over LTE access.

In Release 15 the related functionality for eCall in IMS was specified for the 5G System.

However Release 15 TS 23.501 prohibits eCall in IMS over NR with 5

**Discussion:**

The SA4 Chairman sent a mail on Apr 02, 2020 forenoon, seeking approval of the report. As no comments were received by 3 Apr 0900 hrs, the same was noted over the official SA4 email reflector.

**Decision:** The document was **noted**.

**S4-200534 LS Reply on QoS mapping procedure for FLUS**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: CT WG3*

**Abstract:**

This LS is regarding the LS (C3-201033/S4-191277) on QoS mapping procedure for FLUS from SA4.

CT3 has mentioned that, the group has studied the subject and specified the functionality in the agreed CRs.

The functionality has been specified according to t

**Discussion:**

The SA4 Chairman sent a mail on Apr 02, 2020 afternoon, seeking approval of the report. It was allocated to the MTSI SWG for further deliberations.

Reply in S4-200587 (AI -11.3)

**Decision:** The document was **replied to in S4-200587**.

**S4-200587 Reply to: LS Reply on QoS mapping procedure for FLUS**

*Type: LS out For: approval  
 to CT WG3, cc CT1  
 Source: current meeting*

**Decision:** The document was **revised to S4-200690**.

### 5.3 Other groups

**S4-200531 LS/o on synchronization of Y.DNI-fr “Framework and Requirements of Decentralized Trustworthy Network Infrastructure” in Q2/13**

*Type: LS in For: Action  
 Original outgoing LS: -, to -, cc -  
 Source: ITU-T Study Group 13*

**Abstract:**

This document contains ITU-T Recommendation Y.DNI-fr: “Framework and Requirements of Decentralized Trustworthy Network infrastructure”, output of Q2/13 meeting, Geneva, 2-13 Mar 2020.

This output draft is based on TD332(WP3/13), output of Q2/13 meetin

**Discussion:**

The SA4 Chairman sent a mail on Apr 02, 2020 afternoon, seeking approval of the report. As no comments were made till 3rd Apr noon, this is noted

**Decision:** The document was **noted**.

**S4-200533 Common Media Client Data CTA-5004 (community review)**

*Type: LS in For: Action  
 Original outgoing LS: -, to -, cc -  
 Source: Consumer Technology Association’s WAVE*

**Abstract:**

For the past six months, the Consumer Technology Association’s WAVE project has had a Work Group developing the “CTA-5004 Common Media Client Data” specification. This standard defines a simple means by which every media player can communicate data with e

**Discussion:**

The SA4 Chairman sent a mail on Apr 02, 2020 afternoon, seeking approval of the report. It was allocated to the MBS SWG for further deliberations.

**Decision:** The document was **replied to in S4-200628**.

**S4-200628 Reply to: Common Media Client Data CTA-5004 (community review)**

*Type: LS out For: approval  
 to Consumer Technology Association’s WAVE  
 Source: current meeting*

**Decision:** The document was **revised to S4-200687**.

**S4-200687 Reply to: Common Media Client Data CTA-5004 (community review)**

*Type: LS out For: approval  
 to Consumer Technology Association’s WAVE  
 Source: current meeting*

(Replaces S4-200628)

**Decision:** The document was **approved**.

**S4-200535 LS about the availability of ISG ARF reference architecture for an AR solution**

*Type: LS in For: Action  
 Original outgoing LS: -, to -, cc -  
 Source: ETSI ISG ARF (Augmented Reality Framework)*

**Abstract:**

ETSI Industry Specification Group AR Framework (ISG ARF) is currently developing a framework for the interoperability of AR components, systems and services and would like to inform your organization of the availability for community review of the final d

**Discussion:**

The SA4 Chairman sent a mail on Apr 02, 2020 afternoon, seeking approval of the report. It was allocated to the Video SWG for any action within the stipuated time-frame.

**Decision:** The document was **noted**.

**S4-200536 Liaison Statement from SC 29/WG 11 to 3GPP SA4 on CMAF [SC 29/WG 11 N 19163]**

*Type: LS in For: Information  
 Original outgoing LS: -, to -, cc -  
 Source: ISO/IEC JTC 1/SC 29/WG 11*

**Abstract:**

In accordance with Recommendation 21.4.2 at the 129th WG 11 Meeting, 2020-01-

13/17, Brussels, Belgium, the SC 29 Secretariat sends this liaison statement to

3GPP SA4. [Requested action: For SC 29's information]

**Discussion:**

The SA4 Chairman sent a mail on Apr 02, 2020 afternoon.

Qualcomm: As the work in MPEG CMAF is very similar to TV Video Profile work and in TS26.511 for HEVC video profiles. 3GPP SA4 has gathered significant interoperability requirements in these two specs for DASH/CMAF based HEVC media profiles. A comparison has started for the CMAF media profiles in MPEG and the TV Video Profiles. Proposed to allocated the Tdoc for Video for further deliberation

**Decision:** The document was **replied to in S4-200669**.

**S4-200669 Reply to: Liaison Statement from SC 29/WG 11 to 3GPP SA4 on CMAF [SC 29/WG 11 N 19163]**

*Type: LS out For: approval  
 to ISO/IEC JTC 1/SC 29/WG 11  
 Source: current meeting*

**Decision:** The document was **revised to S4-200684**.

**S4-200684 Reply to: Liaison Statement from SC 29/WG 11 to 3GPP SA4 on CMAF [SC 29/WG 11 N 19163]**

*Type: LS out For: approval  
 to ISO/IEC JTC 1/SC 29/WG 11  
 Source: current meeting*

(Replaces S4-200669)

**Decision:** The document was **approved**.

**S4-200537 Audio ‘Headset’ Requirements in 3GPP TS 26.132**

*Type: LS in For: Action  
 Original outgoing LS: -, to -, cc -  
 Source: GCF CAG#61*

**Abstract:**

Concerns within the GCF membership regarding the ‘Headset’ requirements referenced in TS26.132 which have been used in GCF’s audio work item (WI-252).

GCF CAG would like to kindly ask 3GPP SA4’s opinion as indicated in the LS

**Discussion:**

The SA4 Chairman sent a mail on Apr 02, 2020 afternoon to the group stating

that this document is dealt in SQ SWG. Comments invited by Monday 6th April 1200

**Decision:** The document was **replied to in S4-200605**.

**S4-200605 Reply to: Audio ‘Headset’ Requirements in 3GPP TS 26.132**

*Type: LS out For: approval  
 to GCF CAG#61  
 Source: current meeting*

**Discussion:**

The Chairman allocated this document to SQ SWG. If no comments are received till 6th Apr forenoon, this is to be discussed in SQ SWG and then was taken up in SA4 closing plenary.

**Decision:** The document was **revised to S4-200636**.

**S4-200675 Reply to: Audio ‘Headset’ Requirements in 3GPP TS 26.132**

*Type: LS out For: approval  
 to GCF CAG#61  
 Source: current meeting*

**Decision:** The document was **approved**.

**S4-200538 Liaison to 3GPP SA4**

**PHASE 1 TECHNICAL SPECIFICATION ON ABR MULTICAST**

*Type: LS in For: Action  
 Original outgoing LS: -, to -, cc -  
 Source: DVB Technical Module, TM-Mcast*

**Abstract:**

DVB Project recently published a new technical specification on the use of dynamic adaptive media streaming in IP-based networks - BlueBook A176 (second edition) whch specifies data plane and control plane operations.

**Discussion:**

This document allocated to Video SWG.

Qualcomm: proposed to postpone to SA4#109-e.

**Decision:** The document was **postponed**.

**S4-200636 Draft reply LS on Audio Headset Requirements in 3GPP TS 26.132**

*Type: LS out For: Agreement  
 to GCF CAG  
 Source: Sony Corporation*

(Replaces S4-200605)

**Discussion:**

Revised to S4-200640.

**Decision:** The document was **revised to S4-200640**.

**S4-200640 Draft reply LS on Audio Headset Requirements in 3GPP TS 26.132**

*Type: LS out For: Agreement  
 to GCF CAG  
 Source: Sony Corporation*

(Replaces S4-200636)

**Discussion:**

CTIA - CPWG is responsible for the acoustics aspects and needs to be added for information. Revised to S4-200686.

**Decision:** The document was **revised to S4-200686**.

**S4-200686 Draft reply LS on Audio Headset Requirements in 3GPP TS 26.132**

*Type: LS out For: Agreement  
 to GCF CAG  
 Source: Sony Corporation*

(Replaces S4-200640)

**Decision:** The document was **approved**.

**S4-200301 Liaison Statement from SC 29/WG 11 to 3GPP SA2, 3GPP SA4, 3GPP SA6 on NBMP [SC 29/WG 11 N 19052]**

*Type: LS in For: Information  
 Original outgoing LS: -, to -, cc -  
 Source: ISO/IECJTC 1/SC 29 Coding of audio, picture, multimedia and hypermedia information Secretariat: JISC (Japan)*

**Abstract:**

NBMP/MPEG

**Discussion:**

This LS is noted

**Decision:** The document was **noted**.

**S4-200302 Liaison Statement from SC 29/WG 11 to 3GPP SA4 on DASH [SC 29/WG 11 N 19158]**

*Type: LS in For: -  
 Original outgoing LS: -, to -, cc -  
 Source: ISO/IECJTC 1/SC 29 Coding of audio, picture, multimedia and hypermedia information Secretariat: JISC (Japan)*

**Abstract:**

On DASH/MPEG

**Discussion:**

This LS is noted

**Decision:** The document was **noted**.

**S4-200016 Liaison Statement from SC 29/WG 11 to 3GPP SA4 on additional HEVC Media Profiles [SC 29/WG 11 N 18931]**

*Type: LS in For: -  
 Original outgoing LS: -, to -, cc -  
 Source: ISO/IEC JTC 1/SC 29*

**Decision:** The document was **noted**.

**S4-200303 Postponed LS from SA4#107 on MPEG XR**

*Type: LS in For: Discussion  
 Original outgoing LS: -, to -, cc -  
 Source: MPEG*

**Decision:** The document was **revised to S4-200662**.

**S4-200662 Postponed LS from SA4#107 on MPEG XR**

*Type: LS in For: Discussion  
 Original outgoing LS: -, to -, cc -  
 Source: MPEG*

(Replaces S4-200303)

**Decision:** The document was **replied to in S4-200679**.

**S4-200679 Reply to: Postponed LS from SA4#107 on MPEG XR**

*Type: LS out For: approval  
 to MPEG  
 Source: current meeting*

**Decision:** The document was **revised to S4-200685**.

**S4-200682 Reply to: Postponed LS from SA4#107 on MPEG XR**

*Type: LS out For: approval  
 to MPEG  
 Source: current meeting*

**Decision:** The document was **approved**.

**S4-200685 Reply to: Postponed LS from SA4#107 on MPEG XR**

*Type: LS out For: approval  
 to MPEG  
 Source: current meeting*

(Replaces S4-200679)

**Decision:** The document was **approved**.

## 6 Issues for immediate consideration

**S4-200680 Issues for immediate consideration**

*Type: other For: Information  
 Source: SA4 Chairman*

**Decision:** The document was **noted**.

## 7 Enhanced Voice Service (EVS) SWG

**S4-200528 Draft EVS SWG Agenda**

*Type: agenda For: (not specified)  
 Source: EVS SWG Chairman*

**Decision:** The document was **agreed**.

### 7.1 Opening of the session

### 7.2 Registration of documents

### 7.3 CRs to Features in Release 15 and earlier

**S4-200566 Two field issues with EVS - Revised**

*Type: other For: Agreement  
 Source: HuaWei Technologies Co., Ltd*

(Replaces S4-200128)

**Discussion:**

This document was agreed in the EVS SWG meeting

**Decision:** The document was **agreed**.

**S4-200592 Corrections to EVS Fixed-Point Source Code**

*Type: draftCR For: Discussion  
 26.442 v15.1.0  
 Source: Ericsson LM, Fraunhofer IIS, VoiceAge Corporation*

**Abstract:**

Issues for the EVS Fixed-Point implementation were reported for 1) EVS Operation and 2) AMR-WB IO Operation; subsequent investigations were carried out for the same.

**Discussion:**

This document was noted in the EVS SWG meeting.

**Decision:** The document was **noted**.

**S4-200610 dCR 26445 Clarifications on ch-aw-recv**

*Type: draftCR For: Agreement  
 26.445 v16.0.0  
 Source: Orange*

**Discussion:**

This document was noted in the EVS SWG meeting.

**Decision:** The document was **noted**.

### 7.4 CRs to completed features in Release 16

### 7.5 Liaisons with other groups/meetings

### 7.6 IVAS\_Codec (EVS Codec Extension for Immersive Voice and Audio Services)

**S4-200503**

*Type: discussion For: Information  
 Source: VoiceAge Corporation*

**Abstract:** The accompanying document “The Acoustics Research Institute.pdf” presents the Acoustics Research Institute (ARI) of the Austrian Academy of Sciences (OeAW) and its capabilities to perform tests with respect to spatial-audio applications of 3GPP

**Decision:** The document was **noted**.

**S4-200529 Discussions on the IVAS Standardization Process**

*Type: discussion For: Information  
 Source: EVS SWG Chairman*

**Decision:** The document was **noted**.

**S4-200599 On the potential public collaboration for IVAS standardization**

*Type: discussion For: Discussion  
 Source: Nokia Corporation*

**Abstract:**

This is a discussion document to improve the workflow for IVAS standardization.

**Decision:** The document was **noted**.

### 7.7 New Work / New Work Items and Study Items

### 7.8 Any Other Business

### 7.9 Close of the session

## 8 Multicast-Broadcast-Streaming (MBS) SWG

**S4-200621 (reserved)**

*Type: other For: discussion  
 Source: SWG MBS*

**Decision:** The document was **noted**.

**S4-200629 (reserved)**

*Type: other For: discussion  
 Source: SWG MBS*

**Discussion:**

draft CR

**Decision:** The document was **agreed**.

**S4-200631 5G Media Streaming (5GMS);Profiles, Codecs and Formats  
(Release 16)**

*Type: other For: discussion  
 Source: SWG MBS*

**Discussion:**

Orange - Gilles Teniou presented the document:

Added refrences and Abbreviations.

Clause 4.5 for subtitles added; IMSC1.1. text track were defined for playback profiles.

For encrption: the subtitle tracks shouldnot be encrypted.

TV Video Profiles: IMSC1.1 text should be supported.

Editor's note added regarding the CMAF track and Switching set constraints in the specifications.

**Decision:** The document was **agreed**.

**S4-200632 (reserved)**

*Type: other For: discussion  
 Source: SWG MBS*

**Decision:** The document was **revised to S4-200639**.

**S4-200639 Draft Time Plan for the EMSA Study Item v0.1.0**

*Type: other For: discussion  
 Source: SWG MBS*

(Replaces S4-200632)

**Discussion:**

Qc - Imed: joint telco where EMSA uses the 2nd hour during the 7th May conference call to discuss the usecases on edge media processing before starting extenstions to 5GMS. Target to complete the TR by March 2021.

**Decision:** The document was **agreed**.

### 8.1 Opening of the session

### 8.2 Registration of documents

### 8.3 Reports/Liaisons from other groups/meetings

### 8.4 Issues for immediate consideration

### 8.5 CRs to features in Release 15 and earlier

### 8.6 CRs to completed features in Release 16

**S4-200512 Add sample percentage to 5GMSA stage 2 Consumption Reporting**

*Type: draftCR For: Agreement  
 26.501 v16.3.0  
 Source: BBC*

**Abstract:**

• Reduce impact of consumption reporting mechanism on the network.

• Harmonisation of consumption reporting design with QoE metrics reporting.

**Decision:** The document was **revised to S4-200594**.

**S4-200539 CR on Domain Model for Uplink Streaming**

*Type: CR For: (not specified)  
 26.501 v16.3.1 CR-0013 Cat: F (Rel-16)  
  
 Source: Qualcomm India Pvt Ltd*

**Discussion:**

SA4 MBS Chairman sent the same for discussion over the officical MBS email reflecor.

**Decision:** The document was **not pursued**.

**S4-200541 Corrections to Stage 2 Ingest Configuration Procedures**

*Type: CR For: (not specified)  
 26.501 v16.3.1 CR-0014 Cat: F (Rel-16)  
  
 Source: Qualcomm India Pvt Ltd*

**Discussion:**

SA4 MBS Chairman sent the same for discussion over the officical MBS email reflecor.

**Decision:** The document was **revised to S4-200627**.

**S4-200627 Corrections to Stage 2 Ingest Configuration Procedures**

*Type: CR For: -  
 26.501 v16.3.1 CR-0014 rev 1 Cat: F (Rel-16)  
  
 Source: Qualcomm India Pvt Ltd*

(Replaces S4-200541)

**Discussion:**

The content of the CR is aggreable.

**Decision:** The document was **postponed**.

**S4-200568 Rename Ingest Session Configuration as Content Hosting Configuration**

*Type: draftCR For: Agreement  
 26.501 v16.3.1  
 Source: BBC*

**Abstract:**

Align name of configuration in the domain model with stage 2 feature name.

Textual modification and replacement figure.

**Decision:** The document was **revised to S4-200597**.

**S4-200572 Correction of Provisioning Session Concept**

*Type: draftCR For: Agreement  
 26.501 v16.3.1  
 Source: Ericsson LM, BBC*

**Decision:** The document was **revised to S4-200623**.

**S4-200623 Correction of Provisioning Session Concept**

*Type: draftCR For: Agreement  
 26.501 v16.3.1  
 Source: Ericsson LM, BBC*

(Replaces S4-200572)

**Decision:** The document was **agreed**.

**S4-200575 Discussion of Multi-MNO Distribution Scenario**

*Type: discussion For: Agreement  
 Source: Ericsson LM*

**Decision:** The document was **agreed**.

**S4-200576 Collaboration Model: Multi-MNO Distribution**

*Type: draftCR For: Agreement  
 26.501 v16.3.1  
 Source: Ericsson LM*

**Decision:** The document was **revised to S4-200624**.

**S4-200624 Collaboration Model: Multi-MNO Distribution**

*Type: draftCR For: Agreement  
 26.501 v16.3.1  
 Source: Ericsson LM*

(Replaces S4-200576)

**Decision:** The document was **agreed**.

**S4-200579 Correction on xMB for MCData**

*Type: draftCR For: Agreement  
 26.348 v16.3.0  
 Source: Ericsson LM*

**Decision:** The document was **revised to S4-200617**.

**S4-200617 Correction on xMB for MCData**

*Type: draftCR For: Agreement  
 26.348 v16.3.0  
 Source: Ericsson LM*

(Replaces S4-200579)

**Decision:** The document was **revised to S4-200634**.

**S4-200634 Correction on xMB for MCData**

*Type: draftCR For: Agreement  
 26.348 v16.3.0  
 Source: Ericsson LM*

(Replaces S4-200617)

**Decision:** The document was **agreed**.

**S4-200580 Correction on Annex L.4 (MBMS Download Profile)**

*Type: draftCR For: Agreement  
 26.346 v16.4.1  
 Source: Ericsson LM*

**Decision:** The document was **revised to S4-200618**.

**S4-200618 Correction on Annex L.4 (MBMS Download Profile)**

*Type: draftCR For: Agreement  
 26.346 v16.4.1  
 Source: Ericsson LM*

(Replaces S4-200580)

**Decision:** The document was **revised to S4-200635**.

**S4-200692 Correction on Annex L.4 (MBMS Download Profile)**

*Type: draftCR For: Agreement  
 26.346 v16.4.1  
 Source: Ericsson LM*

(Replaces S4-200618)

**Decision:** The document was **not treated**.

**S4-200590 Corrections on network slicing**

*Type: CR For: Approval  
 26.501 v16.3.1 CR-0015 Cat: F (Rel-16)  
  
 Source: Tencent*

**Decision:** The document was **agreed**.

**S4-200591 Corrections and clarifications for consumption reporting**

*Type: CR For: Approval  
 26.501 v16.3.1 CR-0016 Cat: F (Rel-16)  
  
 Source: Tencent*

**Decision:** The document was **revised to S4-200619**.

**S4-200619 Corrections and clarifications for consumption reporting**

*Type: CR For: Approval  
 26.501 v16.3.1 CR-0016 rev 1 Cat: F (Rel-16)  
  
 Source: Tencent*

(Replaces S4-200591)

**Discussion:**

The content is agreed in principle and was formulated in a draft CR (S4-200629).

**Decision:** The document was **not pursued**.

**S4-200593 Network assistance provided by 5GMSu AF**

*Type: CR For: Approval  
 26.501 v16.3.1 CR-0017 Cat: F (Rel-16)  
  
 Source: Tencent*

**Discussion:**

The content of the document was agreed.

**Decision:** The document was **not pursued**.

**S4-200594 Add sample percentage to 5GMSA stage 2 Consumption Reporting**

*Type: draftCR For: Agreement  
 26.501 v16.3.1  
 Source: BBC*

(Replaces S4-200512)

**Decision:** The document was **agreed**.

**S4-200597 Rename Ingest Session Configuration as Content Hosting Configuration**

*Type: draftCR For: Agreement  
 26.501 v16.3.1  
 Source: BBC*

(Replaces S4-200568)

**Abstract:**

Align name of configuration in the domain model with stage 2 feature name.

Textual modifications to various clauses and replacement Figure 5.3.1-1.

**Decision:** The document was **revised to S4-200625**.

**S4-200625 Rename Ingest Session Configuration as Content Hosting Configuration**

*Type: draftCR For: Agreement  
 26.501 v16.3.1  
 Source: BBC*

(Replaces S4-200597)

**Decision:** The document was **agreed**.

**S4-200601 5GMSA Network Assistance**

*Type: draftCR For: Agreement  
 26.501 v16.3.1  
 Source: Sony Europe B.V.*

Discussion: The content of this document was partially agreed during the meeting.

**Decision:** Therefore, this document was **not concluded.**

**S4-200602 5GMSA Remote Control**

*Type: draftCR For: Agreement  
 26.501 v16.3.1  
 Source: Sony Europe B.V., Ericsson LM*

**Decision:** The document was **noted**.

### 8.7 5GMS3 (5G Media Streaming stage 3)

**S4-200509 Draft TS 26.512 5G Media Streaming (5GMS); Protocols**

*Type: draft TS For: (not specified)  
 26.512 v1.0.1  
 Source: Ericsson Japan K.K.*

**Discussion:**

The SA4 Chairman started email discussion on the topic on 2nd April, 2020.

Thorsten from Ericsson presented this document.

**Decision:** The document was **agreed**.

**S4-200511 5GMSA Domain Model and API Design Principles**

*Type: discussion For: Agreement  
 Source: BBC*

**Abstract:**

- Update to 5G Media Streaming domain model for review and discussion.

- Modified proposal for RESTful API resource hierarchy at interface M1d, for agreement.

**Discussion:**

email discussion started on3rd April, 2020 afternoon.

This document was revised.

**Decision:** The document was **revised to S4-200630**.

**S4-200630 5GMSA Domain Model and API Design Principles**

*Type: discussion For: Agreement  
 Source: BBC*

(Replaces S4-200511)

**Decision:** The document was **noted**.

**S4-200513 Renaming entities in the 5GMS Provisioning API**

*Type: pCR For: Agreement  
 26.512 v1.0.1  
 Source: BBC*

**Abstract:**

The names of some entities in the object model are confusing. This change aligns the terminology with that of the phase 2 architecture.

TS 26.501 defines a high-level feature called "Content Hosting", so the object model should follow suit.

**Decision:** The document was **agreed**.

**S4-200514 Additional clauses to specify procedures for manipulating Ingest Protocols, Content Preparation Templates and Server Certificates**

*Type: pCR For: Agreement  
 26.512 v1.0.1  
 Source: BBC*

**Abstract:**

Document procedures for manipulating M1d RESTful resources describing Ingest Protocols, Content Preparation Templates and Server Certificates.

**Decision:** The document was **agreed**.

**S4-200540 RAN Signaling-based Network Assistance**

*Type: pCR For: Agreement  
 26.512 v1.0.0  
 Source: Qualcomm India Pvt Ltd*

**Decision:** The document was **noted**.

**S4-200542 Dynamic Policy Configuration Procedures**

*Type: pCR For: (not specified)  
 26.512 v1.0.0  
 Source: Qualcomm India Pvt Ltd*

**Decision:** The document was **noted**.

**S4-200553 Client APIs for 5GMS**

*Type: pCR For: Agreement  
 26.512 v1.0.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **noted**.

**S4-200691 Client APIs for 5GMS**

*Type: pCR For: Agreement  
 26.512 v1.0.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **agreed**.

**S4-200554 DASH/CMAF in 5GMS**

*Type: pCR For: Agreement  
 26.512 v1.0.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **noted**.

**S4-200555 Proposed Updates to TV Video Profiles**

*Type: pCR For: Agreement  
 26.511 v1.1.0  
 Source: Qualcomm Incorporated*

**Discussion:**

This document is merged with S4-200556 & S4-200557 to S4-200626.

**Decision:** The document was **merged**.

**S4-200678 Proposed Updates to TV Video Profiles**

*Type: pCR For: Agreement  
 26.511 v1.1.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **approved**.

**S4-200556 Proposed Updates to Subtitles**

*Type: pCR For: Agreement  
 26.511 v1.1.0  
 Source: Qualcomm Incorporated*

**Discussion:**

This document is merged with S4-200555 & S4-200557 to S4-200626.

**Decision:** The document was **merged**.

**S4-200557 Proposed General Updates**

*Type: pCR For: Agreement  
 26.511 v1.1.0  
 Source: Qualcomm Incorporated*

**Discussion:**

This document is merged with S4-200555 & S4-200556 to S4-200626.

**Decision:** The document was **revised to S4-200626**.

**S4-200626 Proposed General Updates**

*Type: pCR For: Agreement  
 26.511 v1.1.0  
 Source: Qualcomm Incorporated*

(Replaces S4-200557)

**Discussion:**

This is the merged document (S4-200555, S4-200556 & S4-200557).

**Decision:** The document was **agreed**.

**S4-200573 Review of N5 / N33 parameters and discussion of Policy Template realizations**

*Type: discussion For: Agreement  
 Source: Ericsson LM*

**Decision:** The document was **noted**.

**S4-200574 M1d Procedure for Dynamic Policy Provisioning**

*Type: pCR For: Agreement  
 26.512 v1.0.1  
 Source: Ericsson LM*

**Decision:** The document was **noted**.

**S4-200577 API for Service Access information aquisition**

*Type: pCR For: Agreement  
 26.512 v1.0.1  
 Source: Ericsson LM*

**Decision:** The document was **noted**.

**S4-200588 Consumption Reporting Procedure API- M1d and M5d**

*Type: draftCR For: Agreement  
 26.512 v1.0.1  
 Source: ENENSYS*

**Decision:** The document was **revised to S4-200633**.

**S4-200633 Consumption Reporting Procedure API- M1d and M5d**

*Type: draftCR For: Agreement  
 26.512 v1.0.1  
 Source: ENENSYS*

(Replaces S4-200588)

**Decision:** The document was **agreed**.

**S4-200600 5GMS3 Work Plan V0.10**

*Type: Work Plan For: Agreement  
 Source: Sony Europe B.V.*

**Decision:** The document was **revised to S4-200622**.

**S4-200611 Procedure for the OpenAPI implementation of the 5GMS APIs**

*Type: discussion For: (not specified)  
 Source: Qualcomm India Pvt Ltd*

**Decision:** The document was **revised to S4-200620**.

**S4-200620 Procedure for the OpenAPI implementation of the 5GMS APIs**

*Type: discussion For: -  
 Source: Qualcomm India Pvt Ltd*

(Replaces S4-200611)

**Decision:** The document was **agreed**.

### 8.8 FS\_5GMS\_Multicast (Feasibility Study on Multicast Architecture Enhancements for 5GMSA)

**S4-200598 Proposed Work Plan for FS\_5GMS\_Multicast**

*Type: Work Plan For: Agreement  
 Source: TELUS*

**Abstract:**

In this contribution, the work plan for FS\_5GMS\_Multicast is proposed.

**Decision:** The document was **revised to S4-200637**.

**S4-200612 Proposed Skeleton TR26.802 Multicast Architecture Enhancement for 5G Media Streaming**

*Type: discussion For: Agreement  
 Source: TELUS*

**Abstract:**

A skeleton of TR 26.802 is proposed in this contribution.

**Decision:** The document was **noted**.

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

**S4-200563 Proposed Work Plan for FS\_XRTraffic**

*Type: Work Plan For: Agreement  
 Source: Qualcomm Incorporated*

**Decision:** The document was **revised to S4-200638**.

**S4-200564 Proposed Skeleton Draft CR XR Traffic**

*Type: draftCR For: Agreement  
 26.925 v16.0.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **noted**.

### 8.10 FS\_EMSA (Feasibility Study on Streaming Architecture extensions For Edge processing)

**S4-200544 Draft TR proposal for Edge Media Processing**

*Type: discussion For: (not specified)  
 Source: Qualcomm India Pvt Ltd*

**Decision:** The document was **noted**.

**S4-200545 Timeplan Proposal for Edge Media Processing**

*Type: discussion For: (not specified)  
 Source: Qualcomm India Pvt Ltd*

**Decision:** The document was **not treated**.

**S4-200596 Edge Computing for Content Hosting and Caching**

*Type: discussion For: Agreement  
 Source: KPN N.V.*

**Decision:** The document was **noted**.

### 8.11 New Work / New Work Items and Study Items

### 8.12 Others including TEI

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

### 8.14 Any Other Business

### 8.15 Close of the session

## 9 Speech Quality (SQ) SWG

### 9.1 Opening of the session

### 9.2 Registration of documents

### 9.3 Liaison Statements

### 9.4 CRs to Features in Release 15 and earlier, and other contributions on terminal acoustics

**S4-200504 Clarifying nature of headset requirements**

*Type: CR For: Approval  
 26.131 v16.0.0 CR-0081 Cat: F (Rel-16)  
  
 Source: Samsung Electronics Polska*

**Decision:** The document was **postponed**.

**S4-200505 Handling insert-type headsets that not fitting ear simulators properly**

*Type: CR For: Approval  
 26.132 v16.2.0 CR-0104 Cat: F (Rel-16)  
  
 Source: Samsung Electronics Polska*

**Decision:** The document was **postponed**.

**S4-200606 Comments to S4-200504 and S4-200505 on Headset Testing**

*Type: discussion For: (not specified)  
 Source: Sony Corporation*

**Abstract:**

Comments to draft CR:s to TS 26.131 and TS 26.132 on headset testing

**Decision:** The document was **postponed**.

### 9.5 ATIAS (Terminal Audio quality performance and Test methods for Immersive Audio Services)

### 9.6 HaNTE (Handsets Featuring Non-Traditional Earpieces)

**S4-200565 Proposals for data collection of HaNTE – test methods**

*Type: discussion For: Agreement  
 Source: Qualcomm Incorporated*

**Decision:** The document was **revised to S4-200675**.

**S4-200676 Proposals for data collection of HaNTE – test methods**

*Type: discussion For: Agreement  
 Source: Qualcomm Incorporated*

(Replaces S4-200565)

**Abstract:**

This contribution proposes test methods that participating companies can use for a data collection round robin in support of the work item on Handsets Featuring Non-Traditional Earpieces (HaNTE), approved at SA#86

**Discussion:**

Qualcomm presented the document.

4 participating labs are interested to take up this activity - Qualcomm Incorporated

HEAD Acoustics GmbH

Orange and,

Huawei Technologies.

**Decision:** The document was **agreed**.

### 9.7 ANTeM (Ambient noise test methodology for evaluation of acoustic UE performance)

**S4-200567 WI summary for ANTeM**

*Type: WI summary For: Endorsement  
 Source: HEAD acoustics GmbH*

**Abstract:**

The work item ANTEM was initiated to the feasibility study FS\_ANTeM in order to follow the conclusion of TR 26.921 regarding handset speech quality testing under ambient noise conditions.

**Decision:** The document was **endorsed**.

### 9.8 Joint sessions of SQ SWG with other SWGs

### 9.9 New Work / New Work Items and Study Items

### 9.10 Output Documents from the SQ SWG session to the SA4 Plenary

### 9.11 Any Other Business

### 9.12 Close of the session

## 10 Video SWG

### 10.1 Opening of the session

### 10.2 Registration of documents

### 10.3 Reports and liaisons from other groups

### 10.4 CRs to Features in Release 15 and earlier

### 10.5 CRs to completed features in Release 16

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

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

**S4-200558 Proposed Work Plan for FS\_5GVideo**

*Type: Work Plan For: Agreement  
 Source: Qualcomm Incorporated*

**Decision:** The document was **revised to S4-200663**.

**S4-200663 Proposed Work Plan for FS\_5GVideo**

*Type: Work Plan For: Agreement  
 Source: Qualcomm Incorporated*

(Replaces S4-200558)

**Decision:** The document was **revised to S4-200667**.

**S4-200559 Proposed Skeleton TR26.9xx: 5G Video Characterization**

*Type: discussion For: Agreement  
 Source: Qualcomm Incorporated*

**Decision:** The document was **agreed**.

**S4-200661 Draft TR 26.955 5G Video Codec Characteristics v0.0.1**

*Type: discussion For: Agreement  
 Source: Qualcomm Incorporated*

**Decision:** The document was **agreed**.

**S4-200560 Draft CR26.9xx 5GVideo Scenario Template**

*Type: discussion For: Agreement  
 Source: Qualcomm Incorporated*

**Decision:** The document was **revised to S4-200664**.

**S4-200664 Draft CR26.9xx 5GVideo Scenario Template**

*Type: discussion For: Agreement  
 Source: Qualcomm Incorporated*

(Replaces S4-200560)

**Decision:** The document was **agreed**.

**S4-200561 Draft CR26.9xx 5GVideo Scenario Full HD**

*Type: discussion For: Agreement  
 Source: Qualcomm Incorporated*

**Decision:** The document was **revised to S4-200665**.

**S4-200665 Draft CR26.9xx 5GVideo Scenario Full HD**

*Type: discussion For: Agreement  
 Source: Qualcomm Incorporated*

(Replaces S4-200561)

**Decision:** The document was **agreed**.

**S4-200562 5G Video - Summary of Offline Discussions**

*Type: discussion For: Agreement  
 Source: Qualcomm Incorporated*

**Decision:** The document was **agreed**.

**S4-200569 4K and 8K TV scenarios for FS\_5GVideo**

*Type: discussion For: Agreement  
 Source: ATEME, InterDigital*

**Decision:** The document was **not treated**.

### 10.8 New Work / New Work Items and Study Items

**S4-200520 New SID on 5G Glass-type AR/MR Devices**

*Type: SID new For: Approval  
 Source: Samsung Electronics France SA*

**Abstract:**

The study on 5G Glass type AR aims to classify XR devices into different form factors, including AR glasses, also referred to as optical head-mounted displays (OHMDs) and addresses the relevant power and tethering issues with the sidelink.

A key aspect of this study is to identify the details of AR glasses including the capabilities for communication, processing, media handling, and power consumption.

**Discussion:**

Samsung [over E-mail]: It covers a wider scope including terminal architecture, E2E media processing, delivery transport protocols, and sidelink.The SID has been drafted as a way forward for glass-type devices. Request to be treated in MTSI SWG and others are welcome SWGs to join in there.

SA4 Chairman [over E-mail]: As approved in the agenda of the meeting, MTSI SWG has to deal with E\_FLUS and maintenance in priority. Looking at the number of documents MTSI has to deal with, it is unlikely the proposed SID can be discussed during any of the MTSI SWG online sessions.

Hence, the leadership decided to move this to the Video SWG to make it possible for the proposed SID to be actually presented and discussed during a telco. As none of the SWG telcos happen in parallel, any interested delegate could attend the Video SWG.

**Decision:** The document was **revised to S4-200668**.

### 10.9 Liaisons and Liaison Responses

### 10.10 Any Other Business

### 10.11 Close of the session

## 11 Multimedia Telephony Service for IMS (MTSI) SWG

**S4-200656 (reserved)**

*Type: other For: discussion  
 Source: Multimedia Telephony Service for IMS (MTSI) SWG*

**Decision:** The document was **not treated**.

**S4-200657 (reserved)**

*Type: other For: discussion  
 Source: Multimedia Telephony Service for IMS (MTSI) SWG*

**Decision:** The document was **not treated**.

**S4-200658 (reserved)**

*Type: other For: discussion  
 Source: Multimedia Telephony Service for IMS (MTSI) SWG*

**Decision:** The document was **not treated**.

**S4-200659 (reserved)**

*Type: other For: discussion  
 Source: Multimedia Telephony Service for IMS (MTSI) SWG*

**Decision:** The document was **agreed**.

**S4-200660 (reserved)**

*Type: other For: discussion  
 Source: Multimedia Telephony Service for IMS (MTSI) SWG*

**Decision:** The document was **not treated**.

### 11.1 Opening of the session

### 11.2 Registration of documents

### 11.3 Reports and liaisons from other groups

**S4-200690 Draft LS reply on QoS mapping procedure**

*Type: LS out For: Approval  
 to CT3, cc CT1  
 Source: Ericsson LM*

(Replaces S4-200587)

**Decision:** The document was **approved**.

### 11.4 CRs to Features in Release 15 and earlier

### 11.5 CRs to completed features in Release 16

### 11.6 E\_FLUS (Enhancements to Framework for Live Uplink Streaming)

**S4-200519 Time Plan for E\_FLUS Work Item v0.12.0**

*Type: Work Plan For: Agreement  
 Source: QUALCOMM Incorporated (Rapporteur)*

**Decision:** The document was **revised to S4-200652**.

**S4-200652 Time Plan for E\_FLUS Work Item v0.12.0**

*Type: Work Plan For: Agreement  
 Source: QUALCOMM Incorporated (Rapporteur)*

(Replaces S4-200519)

**Decision:** The document was **agreed**.

**S4-200521 Correction of References**

*Type: CR For: Agreement  
 26.238 v16.4.2 CR-0018 Cat: F (Rel-16)  
  
 Source: Samsung R&D Institute India*

**Decision:** The document was **revised to S4-200644**.

**S4-200644 Correction of References**

*Type: CR For: Agreement  
 26.238 v16.4.2 CR-0018 rev 1 Cat: F (Rel-16)  
  
 Source: Samsung R&D Institute India*

(Replaces S4-200521)

**Decision:** The document was **agreed**.

**S4-200523 Clarification on uplink assistance**

*Type: draftCR For: Agreement  
 26.238 v16.4.2  
 Source: Samsung R&D Institute India*

**Decision:** The document was **revised to S4-200645**.

**S4-200645 Clarification on uplink assistance**

*Type: draftCR For: Agreement  
 26.238 v16.4.2  
 Source: Samsung R&D Institute India*

(Replaces S4-200523)

**Discussion:**

This document sent for email agreement on 7th Apr 0700 hrs and was subsequently agreed in the closing plenary.

This CR describes the change of figure "UE FLUS Sink” to “FLUS Sink in UE or Network” for RAN signaling based uplink assistance.

**Decision:** The document was **agreed**.

**S4-200524 Update and correction of FLUS source systems**

*Type: draftCR For: Agreement  
 26.238 v16.4.2  
 Source: Samsung R&D Institute India*

**Decision:** The document was **revised to S4-200647**.

**S4-200647 Update and correction of FLUS source systems**

*Type: CR For: Agreement  
 26.238 v16.4.2  
 Source: Samsung R&D Institute India*

(Replaces S4-200524)

**Discussion:**

This document was sent for email approval by 7th Apr 2000 hrs and was subsequently agreed.

**Decision:** The document was **agreed**.

**S4-200525 Update, correction and clarification of text**

*Type: draftCR For: Agreement  
 26.238 v16.4.2  
 Source: Samsung R&D Institute India*

**Discussion:**

it was converted to formal CR and revised to S4-200646

**Decision:** The document was **revised to S4-200646**.

**S4-200646 Update, correction and clarification of text**

*Type: draftCR For: Agreement  
 26.238 v16.4.2  
 Source: Samsung R&D Institute India*

(Replaces S4-200525)

**Discussion:**

Sent for email agreement on 7th Apr 0700 hrs which was subsequently agreed.

**Decision:** The document was **agreed**.

**S4-200550 Sink Capabilities in FLUS**

*Type: CR For: Approval  
 26.238 v16.4.2 CR-0019 Cat: C (Rel-16)  
  
 Source: Tencent*

**Abstract:**

Fixing the lack of interoperability in the sink capabilities signaling.

**Decision:** The document was **not pursued**.

**S4-200551 Sink Configuration in FLUS**

*Type: CR For: Approval  
 26.238 v16.4.2 CR-0020 Cat: F (Rel-16)  
  
 Source: Tencent*

**Decision:** The document was **not pursued**.

**S4-200578 Correction of F-C Stage 3**

*Type: draftCR For: Agreement  
 26.238 v16.4.2  
 Source: Ericsson LM*

**Decision:** The document was **merged to S4-200643**.

**S4-200589 Draft CR TS 26.238 Media Codec Profile for E\_FLUS**

*Type: draftCR For: Agreement  
 26.238 v16.4.2  
 Source: QUALCOMM, Incorporated*

**Discussion:**

revised to a formal CR

**Decision:** The document was **revised to S4-200642**.

**S4-200642 Media Codec Profile for E\_FLUS**

*Type: CR For: Agreement  
 26.238 v16.4.2  
 Source: QUALCOMM, Incorporated*

**Abstract:**

Media codecs for IMS and non IMS based FLUS

**Decision:** The document was **agreed**.

**S4-200603 E\_FLUS: Discovery of FLUS sinks using a Sink Discovery Server**

*Type: discussion For: (not specified)  
 26.238 v..  
 Source: Samsung Research America*

**Discussion:**

S4-200578,S4-200603,S4-200604, and S4-200613 are merged to S4-200643.

**Decision:** The document was **merged**.

**S4-200604 Discovery Server for FLUS Sinks**

*Type: draftCR For: (not specified)  
 26.238 v16.4.2  
 Source: Samsung Research America*

**Discussion:**

S4-200578,S4-200603,S4-200604, and S4-200613 are merged to S4-200643.

**Decision:** The document was **merged**.

**S4-200613 The resource addressing in FLUS**

*Type: draftCR For: Approval  
 26.238 v16.4.2  
 Source: Tencent*

**Discussion:**

S4-200578,S4-200603,S4-200604, and S4-200613 are merged to S4-200643.

**Decision:** The document was **merged**.

**S4-200643 Draft Merge Correction of F-C Stage 3**

*Type: draftCR For: Approval  
 26.238 v16.4.2  
 Source: Tencent*

(Replaces S4-200613)

**Discussion:**

S4-200578,S4-200603,S4-200604, and S4-200613 are merged to S4-200643.

**Decision:** The document was **revised to S4-200648**.

**S4-200648 Draft Merge Correction of F-C Stage 3**

*Type: draftCR For: Approval  
 26.238 v16.4.2  
 Source: Tencent*

(Replaces S4-200643)

**Decision:** The document was **revised to S4-200649**.

**S4-200649 Draft Merge Correction of F-C Stage 3**

*Type: draftCR For: Approval  
 26.238 v16.4.2  
 Source: Tencent*

(Replaces S4-200648)

**Decision:** The document was **revised to S4-200651**.

**S4-200651 Draft Merge Correction of F-C Stage 3**

*Type: draftCR For: Approval  
 26.238 v16.4.2  
 Source: Tencent*

(Replaces S4-200649)

**Decision:** The document was **agreed**.

### 11.7 ITT4RT (Support of Immersive Teleconferencing and Telepresence for Remote Terminals)

**S4-200506 Proposed Timeplan for ITT4RT (v0.6.0)**

*Type: Work Plan For: Agreement  
 Source: Intel (Rapporteur)*

**Decision:** The document was **revised to S4-200653**.

**S4-200653 Proposed Timeplan for ITT4RT (v0.6.0)**

*Type: Work Plan For: Agreement  
 Source: Intel (Rapporteur)*

(Replaces S4-200506)

**Decision:** The document was **revised to S4-200691**.

**S4-200507 ITT4RT Permanent Document - Requirements, Working Assumptions and Potential Solutions (v0.6.0)**

*Type: other For: Agreement  
 Source: Intel (Rapporteur)*

**Decision:** The document was **revised to S4-200609**.

**S4-200508 Updated ITT4RT WID**

*Type: WID revised For: Agreement  
 Source: Intel, Nokia Corporation, Huawei Technologies Co. Ltd.*

**Discussion:**

To update the Rapporteur from Huawei to Nokia (Igor Curcio).

Chairman: Is that ok not to send to SA?

Intel - Ozgur: OK with not sending to SA plenary

MCC: Change of rapporteur to be informed to the Work Plan manager

**Decision:** The document was **agreed**.

**S4-200543 Scene Description for Overlays and Beyond**

*Type: discussion For: (not specified)  
 Source: Qualcomm India Pvt Ltd*

**Decision:** The document was **agreed**.

**S4-200546 ITT4RT: An Alternative Potential Solution on Viewport Information Signaling**

*Type: discussion For: Agreement  
 Source: Intel*

**Decision:** The document was **agreed**.

**S4-200595 ITT4RT: Improvements of Signaling the FOV information using RTCP feedback**

*Type: discussion For: Agreement  
 Source: Tencent*

**Decision:** The document was **not treated**.

**S4-200609 ITT4RT Permanent Document - Requirements, Working Assumptions and Potential Solutions (v0.6.1)**

*Type: other For: Agreement  
 Source: Intel (Rapporteur)*

(Replaces S4-200507)

**Discussion:**

This document was sent for email agreement on 7th Apr 2200.

**Decision:** The document was **revised to S4-200650**.

**S4-200650 ITT4RT Permanent Document - Requirements, Working Assumptions and Potential Solutions (v0.6.1)**

*Type: other For: Agreement  
 Source: Intel (Rapporteur)*

(Replaces S4-200609)

**Discussion:**

Intel - Ozgur Oyman: Reflects all the agreements that has been carried out since SA4#107. Updates on potential solutions on the overlays. Other editorial corrections. Additional description about margin control aspects, additional evaluation of RTCP feedback bandwidth.

Chairman: Presented as a basis for further work.

**Decision:** The document was **agreed**.

### 11.8 FS\_FLUS\_NBMP (Feasibility Study on the use of NBMP in E\_FLUS)

**S4-200548 Proposed Work Plan for FS\_FLUS\_NBMP**

*Type: Work Plan For: Agreement  
 Source: Tencent*

**Decision:** The document was **revised to S4-200654**.

**S4-200654 Proposed Work Plan for FS\_FLUS\_NBMP**

*Type: Work Plan For: Agreement  
 Source: Tencent*

(Replaces S4-200548)

**Decision:** The document was **revised to S4-200655**.

**S4-200655 Proposed Work Plan for FS\_FLUS\_NBMP**

*Type: Work Plan For: Agreement  
 Source: Tencent*

(Replaces S4-200654)

**Decision:** The document was **agreed**.

**S4-200549 Workflow example for FS\_FLUS\_NBMP**

*Type: CR For: Approval  
 26.939 v16.1.0 CR-0009 Cat: B (Rel-17)  
  
 Source: Tencent*

**Decision:** The document was **not pursued**.

**S4-200552 TR Skeleton**

*Type: discussion For: Agreement  
 Source: Tencent*

**Decision:** The document was **noted**.

**S4-200607 Workflow example for FS\_FLUS\_NBMP**

*Type: discussion For: Agreement  
 26.939 v..  
 Source: Tencent*

(Replaces S4-200549)

**Decision:** The document was **noted**.

### 11.9 Others including TEI

**S4-200571 Bandwidth for open offer**

*Type: discussion For: Agreement  
 Source: Ericsson LM*

**Decision:** The document was **noted**.

**S4-200608 Setting b=AS in presence of an open offer**

*Type: draftCR For: Discussion  
 26.114 v16.5.2  
 Source: Fraunhofer IIS*

**Decision:** The document was **noted**.

### 11.10 New Work / New Work Items and Study Items

### 11.11 Any Other Business

### 11.12 Close of the session

## 12 LSs received during the meeting and Postponed Liaisons (from A. I. 5)

**S4-200672 List of Postponed Liaison Statements (LS) from SA4#108-e**

*Type: other For: Information  
 Source: SA4*

**Abstract:**

List of postponed LS from SA4#107:

S4-200016,S4-200301, and S4-200302

**Decision:** The document was **noted**.

## 13 Reports and general issues from sub-working-groups

### 13.1 EVS SWG

**S4-200674 Report from the EVS SWG Chairman during SA4#108-e**

*Type: report For: Approval  
 Source: EVS SWG*

**Discussion:**

The EVS SWG Chair presented the report.

**Decision:** The document was **approved**.

### 13.2 MBS SWG

**S4-200616 3GPP SA4 MBS SWG Chairman's Report for SA4#108-e**

*Type: report For: Approval  
 Source: SWG MBS*

**Abstract:**

The SWG MBS Chairman presented the MBS report.

**Decision:** The document was **approved**.

### 13.3 MTSI SWG

**S4-200641 MTSI SWG Report during SA4#108-e**

*Type: report For: discussion  
 Source: Multimedia Telephony Service for IMS (MTSI) SWG*

**Decision:** The document was **revised to S4-200688**.

**S4-200688 MTSI SWG Report during SA4#108-e**

*Type: report For: discussion  
 Source: Multimedia Telephony Service for IMS (MTSI) SWG*

(Replaces S4-200641)

**Abstract:**

The MTSI SWG Chairman presented the report at the closing plenary.

**Decision:** The document was **approved**.

### 13.4 SQ SWG

**S4-200681 SQ SWG report at SA4#108-e**

*Type: report For: Approval  
 Source: SQ SWG Interim chairman*

**Decision:** The document was **approved**.

### 13.5 Video SWG

**S4-200670 Report from the Video SWG Chairman during SA4#108-e**

*Type: report For: Approval  
 Source: Video SWG*

**Abstract:**

The Videoo SWG Chairman presented the proceedings of the SWG as captured in the report. It was decided that, there will be 3 conference calls untill the next SA4 meeting in May,2020. The documents S4-200667

and S4-200679 were presented to the closing plenary meeting.

**Decision:** The document was **revised to S4-200683**.

**S4-200683 Report from the Video SWG Chairman during SA4#108-e**

*Type: report For: Approval  
 Source: Video SWG*

(Replaces S4-200670)

**Decision:** The document was **approved**.

## 14 CRs to Features in Release 15 and earlier

## 15 Release 16 Features

### 15.1 CAPIF4xMB (Usage of CAPIF for xMB API)

### 15.2 SerInter (Service Interactivity)

### 15.3 Alt\_FX\_EVS (Alternative EVS implementation using updated fixed-point basic operators)

### 15.4 E\_FLUS (Enhancements to Framework for Live Uplink Streaming)

### 15.5 HLG\_HDR (Hybrid Log Gamma High Dynamic Range)

### 15.6 E2E\_DELAY (Media Handling Aspects of RAN Delay Budget Reporting in MTSI)

### 15.7 5G\_MEDIA\_MTSI\_ext (Media Handling Extensions for 5G Conversational Services)

**S4-200570 Correction of 3gpp-qos-hint examples**

*Type: CR For: Agreement  
 26.114 v16.5.2 CR-0497 Cat: F (Rel-16)  
  
 Source: Ericsson LM*

**Decision:** The document was **agreed**.

### 15.8 CHEM (Coverage and Handoff Enhancements for Multimedia)

### 15.9 MC\_XMB (MCData File Distribution support over xMB)

### 15.10 EVS\_FCNBE (EVS Floating-point Conformance for Non Bit-Exact)

### 15.11 5GMSA (5G Media streaming architecture)

### 15.12 5GMS3 (5G Media Streaming stage 3)

**S4-200510 Draft TR 26.511 5GMS Profiles, Codecs and Formats v1.2.0**

*Type: draft TR For: Agreement  
 26.511 v1.2.0  
 Source: Orange*

**Abstract:**

Draft TR implementing the agreements from the MBS SWG teleconference.

**Discussion:**

The Chairman initiated an email discussion from 2nd - 6th April.

Orange (Gilles Teniou) presented this document which can be agreed as the base line text for further work.

**Decision:** The document was **agreed**.

**S4-200522 5GMS3: Video Codec Support**

*Type: discussion For: (not specified)  
 Source: Huawei Technologies Co. Ltd.; Samsung Electronics Co. Ltd.*

**Discussion:**

Huawei -Yidan Teng: presented this document, the excerpt of which is as follows:

She was of the opinion that, regardless of the resolution video (HD or FullHD), AVC have to mandatory and HEVC is optional. The trend of diversified media streaming is becoming predominant. The bit budget for streaming 1080p60 with AVC is 8 Mbit/s, such bit budget is over-ranging for 4G NW at scale , but realistic in the context of 5G Media Streaming. Considering AVC is mandated in PSS and the two options of TS 26.511, mandatory support for HEVC in 5GMS (Option B) needs further study.

Qualcomm - Thomas Stockhammer:

For the context of 5G media streaming, it can be differentiated intro various cases including mainstream high-end devices, streaming to lower-end devices and further to IoT devices with lesser screen resoltions. There would be new verticals and formats such as VR, 8K, etc. Also diversity of terminals need to be looked at diligently. He finally proposed to postpone this document and have a dedicated discussion.

BBC ,Richard: would like to park this document and would have a call on this topic.

Samsung, Kho: Would need more time for this topic. To give more freedom to the manufacturers by hearing to them .

Xiomi,Mary: Sympathetic and supportive of this proposal. Thinking about future codecs, definitely interested in this.

Qualcomm:To check the relevance of this group and whether it should not devalue the good solution. The old codec which uses quite a way more bit rate cannot be suitbale for 5G services.

Chairman: proposes a call on 5th May for 1.5 hours.

Huawei: to shift the call to 2 PM.

Qualcomm: 2:30 PM to 4:00 PM on 5th May

Chairman: this is a 5GMS3 topic and will be included in the timeplan.

**Decision:** The document was **postponed**.

**S4-200622 5GMS3 Work Plan V0.10**

*Type: Work Plan For: Agreement  
 Source: Sony Europe B.V.*

(Replaces S4-200600)

**Decision:** The document was **revised to S4-200689**.

**S4-200689 5GMS3 Work Plan V0.10**

*Type: Work Plan For: Agreement  
 Source: Sony Europe B.V.*

(Replaces S4-200622)

**Discussion:**

The document was discussed to discuss the timeplan and the power to agree TS 26.512.

**Decision:** The document was **agreed**.

### 15.13 VRQoE (VR QoE metrics)

### 15.14 RTCPVer (RTP/RTCP Verification for Real-Time Services)

### 15.15 DAHOE (Support of Hybrid DASH/HLS over eMBMS)

### 15.16 HaNTE (Handsets Featuring Non-Traditional Earpieces)

### 15.17 TEI16 and any other Rel-16 documents

**S4-200635 TEI**

*Type: other For: discussion  
 Source: nn*

**Discussion:**

Correction of MBMS download profile.

Certain clauses are updated to restrict usage of the MBMS Download Delivery for IP Multicast.

**Decision:** The document was **agreed**.

## 16 Release 17 Features

### 16.1 IVAS\_Codec (EVS Codec Extension for Immersive Voice and Audio Services)

### 16.2 ITT4RT (Support of Immersive Teleconferencing and Telepresence for Remote Terminals)

### 16.3 ATIAS (Terminal Audio quality performance and Test methods for Immersive Audio Services)

### 16.4 ANTeM (Ambient noise test methodology for evaluation of acoustic UE performance)

### 16.5 TEI17 and any other Rel-17 documents

## 17 Study Items

### 17.1 FS\_5GMS\_Multicast (Feasibility Study on Multicast Architecture Enhancements for 5GMSA)

**S4-200637 Proposed Work Plan for FS\_5GMS\_Multicast**

*Type: Work Plan For: Agreement  
 Source: TELUS*

(Replaces S4-200598)

**Discussion:**

Telus: Agreed to MBMS multi cast and FS\_EMSA on 7th May, 2020.

the completion for this has been shifted by 3 months to March 2021 , instead of December 2020.

**Decision:** The document was **agreed**.

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

**S4-200638 Proposed Work Plan for FS\_XRTraffic**

*Type: Work Plan For: Agreement  
 Source: Qualcomm Incorporated*

(Replaces S4-200563)

**Decision:** The document was **agreed**.

### 17.3 FS\_EMSA (Feasibility Study on Streaming Architecture extensions For Edge processing)

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

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

**S4-200667 Proposed Work Plan for FS\_5GVideo**

*Type: Work Plan For: Agreement  
 Source: Qualcomm Incorporated*

(Replaces S4-200663)

**Decision:** The document was **agreed**.

**S4-200666 Technical Report - FS\_5GVideo**

*Type: other For: discussion  
 Source: Video SWG*

**Decision:** The document was **agreed**.

### 17.6 FS\_FLUS\_NBMP (Feasibility Study on the use of NBMP in E\_FLUS)

## 18 Work Items and Study Items under the responsibility of other TSGs/WGs impacting SA4 work

## 19 New Work / New Work Items and Study Items

**S4-200668 New SID on 5G Glass-type AR/MR Devices**

*Type: SID new For: Approval  
 Source: Samsung Electronics France SA*

(Replaces S4-200520)

**Discussion:**

The Chairman asked for clarification on whether the document was presented for Information or Approval.

Samsung: presented for Information and asked for more proponents.

**Decision:** The document was **noted**.

## 20 Postponed issues

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

|  |  |  |
| --- | --- | --- |
| **Meeting** | **Dates** | **Venue and Host** |
| SA4#109-e | May 20 - June 03 2020 (Doc. Submission Deadline: May 18, 2020) | Host: MCC, Electronic meeting  Thanks to FHg IIS for having offered to host in Erlangen ! |
| SA4#110 | 24 - 28 August 2020 | Host: NAF3, Venue: TBD |
| SA4#111 | 9 - 13 November 2020 | Host: IF3, Venue: TBD |

WORK PLAN as on the closing plenary of SA4#108-e (S4-200660)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No. | WI title : | WI code | % Completion | Completion date |
| 1 | Enhancements to Framework for Live Uplink Streaming (F) | E\_FLUS (UID\_800001) | 90%->92% | Fri 18 Jun 2021 |
| 2 | 5G Media Streaming stage 3 (F) | 5GMS3 (UID\_840001) | 70% -> 80 % | Fri 18 Jun 2021 |
| 3 | Terminal Audio quality performance and Test methods for Immersive Audio Services (F) | ATIAS (UID\_830005) | 15%-> 15% | Fri 11 Dec 2020 |
| 4 | EVS Codec Extension for Immersive Voice and Audio Services (F) | IVAS\_Codec (UID\_770024) | 27% -> 27% | Fri 18 Jun 2021 |
| 5 | Support of Immersive Teleconferencing and Telepresence for Remote Terminals (F) | ITT4RT (UID\_820003) | 35% -> 40% | Fri 11 Dec 2020 |
| 6 | Handsets Featuring Non-Traditional Earpieces (F) | HaNTE (UID\_860012) | 5% -> 15% | Fri 18 Sep 2020 |
| 7 | VR Streaming Conformance and Guidelines (SI) | FS\_VR\_CoGui (UID\_850004) | 10%-> ? % | Fri 11 Dec 2020 |
| 8 | Multicast Architecture Enhancements for 5GMSA (SI) | FS\_5GMS\_Multicast | 0% -> 1% | Thurs 17 Dec 2020 |
| 9 | Typical Traffic Characteristics for XR Services and other Media (SI) | FS\_XRTraffic | 0% -> 3% | 2020-06-18 (this is in earlier release -16 ) |
| 10 | Feasibility Study on Streaming Architecture extensions For Edge processing (SI) | FS\_EMSA | 0% -> 1% | Thurs 17 Dec 2020 |
| 11 | Feasibility Study on the use of NBMP in E\_FLUS (SI) | FS\_FLUS\_NBMP | 0 -> 5% | Sat 12 Dec 2020 |

\* List of Adhoc Conference Calls given in individual work plan. A separate excel file is available at the following link: <https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Report>

## 22 Any Other Business

## 23 Close of meeting: Thursday April 9th, at 17:00 hours CEST (at the latest)

Report prepared by: Jayeeta Saha

## Annex A: Contribution documents and status

### A1: List of TDocs

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Document** | **Title** | **Source** | **Decision** | **Is revision of** | **Revised to** |
| S4-200344 | Agenda for the SA4#108-e (Electronic Meeting) | Ericsson LM | withdrawn |  |  |
| S4-200345 | Agenda for SA4#108-e (Electronic Meeting) | Ericsson LM | withdrawn |  |  |
| S4-200401 | Agenda for SA4#108-e (Electronic Meeting) | Ericsson LM | withdrawn |  |  |
| [**S4-200501**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200501.zip) | Agenda for the Electronic Meeting SA4#108-e | SA4 Chairman (Ericsson) | **approved** |  |  |
| [**S4-200502**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200502.zip) | Draft report of SA4#107 held in Wroclaw | 3GPP MCC | revised |  | [**S4-200677**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111501) |
| [**S4-200503**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200503.zip) | Presentation of the Acoustics Research Institute of the Austrian Academy of Sciences | VoiceAge Corporation | noted |  |  |
| [**S4-200504**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200504.zip) | Clarifying nature of headset requirements | Samsung Electronics Polska | postponed |  |  |
| [**S4-200505**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200505.zip) | Handling insert-type headsets that not fitting ear simulators properly | Samsung Electronics Polska | postponed |  |  |
| [**S4-200506**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200506.zip) | Proposed Timeplan for ITT4RT (v0.6.0) | Intel (Rapporteur) | revised |  | [**S4-200653**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111480) |
| [**S4-200507**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200507.zip) | ITT4RT Permanent Document - Requirements, Working Assumptions and Potential Solutions (v0.6.0) | Intel (Rapporteur) | revised |  | [**S4-200609**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103482) |
| [**S4-200508**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200508.zip) | Updated ITT4RT WID | Intel, Nokia Corporation, Huawei Technologies Co. Ltd. | agreed |  |  |
| [**S4-200509**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200509.zip) | Draft TS 26.512 5G Media Streaming (5GMS); Protocols | Ericsson Japan K.K. | agreed |  |  |
| [**S4-200510**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200510.zip) | Draft TR 26.511 5GMS Profiles, Codecs and Formats v1.2.0 | Orange | agreed |  |  |
| [**S4-200511**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200511.zip) | 5GMSA Domain Model and API Design Principles | BBC | revised |  | [**S4-200630**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111457) |
| [**S4-200512**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200512.zip) | Add sample percentage to 5GMSA stage 2 Consumption Reporting | BBC | revised |  | [**S4-200594**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103466) |
| [**S4-200513**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200513.zip) | Renaming entities in the 5GMS Provisioning API | BBC | agreed |  |  |
| [**S4-200514**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200514.zip) | Additional clauses to specify procedures for manipulating Ingest Protocols, Content Preparation Templates and Server Certificates | BBC | agreed |  |  |
| [**S4-200515**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200515.zip) | Draft Report for MTSI SWG 11 Feb 2020 Teleconference #4 on ITT4RT | MTSI SWG Chair | **approved** |  |  |
| [**S4-200516**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200516.zip) | Draft Report for MTSI SWG 26 Feb 2020 Teleconference #2 on RTCPVer | MTSI SWG Chair | **approved** |  |  |
| [**S4-200517**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200517.zip) | Draft Report for MTSI SWG 20 March 2020 Teleconference #5 on ITT4RT | MTSI SWG Chair | **approved** |  |  |
| [**S4-200518**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200518.zip) | Draft Report for MTSI-MBS SWG 23 Mar 2020 Teleconference #12 on E\_FLUS | MTSI SWG Chair | **approved** |  |  |
| [**S4-200519**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200519.zip) | Time Plan for E\_FLUS Work Item v0.12.0 | QUALCOMM Incorporated (Rapporteur) | revised |  | [**S4-200652**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111479) |
| [**S4-200520**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200520.zip) | New SID on 5G Glass-type AR/MR Devices | Samsung Electronics France SA | revised |  | [**S4-200668**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111495) |
| [**S4-200521**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200521.zip) | Correction of References | Samsung R&D Institute India | revised |  | [**S4-200644**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111471) |
| [**S4-200522**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200522.zip) | 5GMS3: Video Codec Support | Huawei Technologies Co. Ltd.; Samsung Electronics Co. Ltd. | postponed |  |  |
| [**S4-200523**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200523.zip) | Clarification on uplink assistance | Samsung R&D Institute India | revised |  | [**S4-200645**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111472) |
| [**S4-200524**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200524.zip) | Update and correction of FLUS source systems | Samsung R&D Institute India | revised |  | [**S4-200647**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111474) |
| [**S4-200525**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200525.zip) | Update, correction and clarification of text | Samsung R&D Institute India | revised |  | [**S4-200646**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111473) |
| [**S4-200526**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200526.zip) | Brief report from SA#87-e on SA4 matters | SA4 Chairman (Ericsson) | noted |  |  |
| [**S4-200527**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200527.zip) | Guidelines for SA4#108-e as Electronic Meeting | SA WG4 Chairman, Vice-chairmen, Secretary and SWG chairmen | noted |  |  |
| [**S4-200528**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200528.zip) | Draft EVS SWG Agenda | EVS SWG Chairman | agreed |  |  |
| [**S4-200529**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200529.zip) | Discussions on the IVAS Standardization Process | EVS SWG Chairman | noted |  |  |
| [**S4-200530**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200530.zip) | Reply LS on support for eCall over NR | TSG SA | noted |  |  |
| [**S4-200531**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200531.zip) | LS/o on synchronization of Y.DNI-fr “Framework and Requirements of Decentralized Trustworthy Network Infrastructure” in Q2/13 | ITU-T Study Group 13 | noted |  |  |
| [**S4-200532**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200532.zip) | LS on support for eCall over NR | SA WG2 | noted |  |  |
| [**S4-200533**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200533.zip) | Common Media Client Data CTA-5004 (community review) | Consumer Technology Association’s WAVE | replied to |  |  |
| [**S4-200534**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200534.zip) | LS Reply on QoS mapping procedure for FLUS | CT WG3 | replied to |  |  |
| [**S4-200535**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200535.zip) | LS about the availability of ISG ARF reference architecture for an AR solution | ETSI ISG ARF (Augmented Reality Framework) | noted |  |  |
| [**S4-200536**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200536.zip) | Liaison Statement from SC 29/WG 11 to 3GPP SA4 on CMAF [SC 29/WG 11 N 19163] | ISO/IEC JTC 1/SC 29/WG 11 | replied to |  |  |
| [**S4-200537**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200537.zip) | Audio ‘Headset’ Requirements in 3GPP TS 26.132 | GCF CAG#61 | replied to |  |  |
| [**S4-200538**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200538.zip) | Liaison to 3GPP SA4 PHASE 1 TECHNICAL SPECIFICATION ON ABR MULTICAST | DVB Technical Module, TM-Mcast | postponed |  |  |
| [**S4-200539**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200539.zip) | CR on Domain Model for Uplink Streaming | Qualcomm India Pvt Ltd | not pursued |  |  |
| [**S4-200540**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200540.zip) | RAN Signaling-based Network Assistance | Qualcomm India Pvt Ltd | noted |  |  |
| [**S4-200541**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200541.zip) | Corrections to Stage 2 Ingest Configuration Procedures | Qualcomm India Pvt Ltd | revised |  | [**S4-200627**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111454) |
| [**S4-200542**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200542.zip) | Dynamic Policy Configuration Procedures | Qualcomm India Pvt Ltd | noted |  |  |
| [**S4-200543**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200543.zip) | Scene Description for Overlays and Beyond | Qualcomm India Pvt Ltd | agreed |  |  |
| [**S4-200544**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200544.zip) | Draft TR proposal for Edge Media Processing | Qualcomm India Pvt Ltd | noted |  |  |
| [**S4-200545**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200545.zip) | Timeplan Proposal for Edge Media Processing | Qualcomm India Pvt Ltd | not treated |  |  |
| [**S4-200546**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200546.zip) | ITT4RT: An Alternative Potential Solution on Viewport Information Signaling | Intel | agreed |  |  |
| [**S4-200547**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200547.zip) | Invitation Links (GTM) to the SA4#108-e Meeting from April 06-09,2020 | 3GPP MCC | noted |  |  |
| [**S4-200548**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200548.zip) | Proposed Work Plan for FS\_FLUS\_NBMP | Tencent | revised |  | [**S4-200654**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111481) |
| [**S4-200549**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200549.zip) | Workflow example for FS\_FLUS\_NBMP | Tencent | not pursued |  | [**S4-200607**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103480) |
| [**S4-200550**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200550.zip) | Sink Capabilities in FLUS | Tencent | not pursued |  |  |
| [**S4-200551**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200551.zip) | Sink Configuration in FLUS | Tencent | not pursued |  |  |
| [**S4-200552**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200552.zip) | TR Skeleton | Tencent | noted |  |  |
| [**S4-200553**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200553.zip) | Client APIs for 5GMS | Qualcomm Incorporated | noted |  |  |
| [**S4-200554**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200554.zip) | DASH/CMAF in 5GMS | Qualcomm Incorporated | noted |  |  |
| [**S4-200555**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200555.zip) | Proposed Updates to TV Video Profiles | Qualcomm Incorporated | merged |  |  |
| [**S4-200556**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200556.zip) | Proposed Updates to Subtitles | Qualcomm Incorporated | merged |  |  |
| [**S4-200557**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200557.zip) | Proposed General Updates | Qualcomm Incorporated | revised |  | [**S4-200626**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111453) |
| [**S4-200558**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200558.zip) | Proposed Work Plan for FS\_5GVideo | Qualcomm Incorporated | revised |  | [**S4-200663**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111490) |
| [**S4-200559**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200559.zip) | Proposed Skeleton TR26.9xx: 5G Video Characterization | Qualcomm Incorporated | agreed |  |  |
| [**S4-200560**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200560.zip) | Draft CR26.9xx 5GVideo Scenario Template | Qualcomm Incorporated | revised |  | [**S4-200664**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111491) |
| [**S4-200561**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200561.zip) | Draft CR26.9xx 5GVideo Scenario Full HD | Qualcomm Incorporated | revised |  | [**S4-200665**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111492) |
| [**S4-200562**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200562.zip) | 5G Video - Summary of Offline Discussions | Qualcomm Incorporated | agreed |  |  |
| [**S4-200563**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200563.zip) | Proposed Work Plan for FS\_XRTraffic | Qualcomm Incorporated | revised |  | [**S4-200638**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111465) |
| [**S4-200564**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200564.zip) | Proposed Skeleton Draft CR XR Traffic | Qualcomm Incorporated | noted |  |  |
| [**S4-200565**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200565.zip) | Proposals for data collection of HaNTE – test methods | Qualcomm Incorporated | revised |  | [**S4-200676**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111500) |
| [**S4-200566**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200566.zip) | Two field issues with EVS - Revised | HuaWei Technologies Co., Ltd | agreed | [**S4-200128**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1085382) |  |
| [**S4-200567**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200567.zip) | WI summary for ANTeM | HEAD acoustics GmbH | endorsed |  |  |
| [**S4-200568**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200568.zip) | Rename Ingest Session Configuration as Content Hosting Configuration | BBC | revised |  | [**S4-200597**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103469) |
| [**S4-200569**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200569.zip) | 4K and 8K TV scenarios for FS\_5GVideo | ATEME, InterDigital | not treated |  |  |
| [**S4-200570**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200570.zip) | Correction of 3gpp-qos-hint examples | Ericsson LM | agreed |  |  |
| [**S4-200571**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200571.zip) | Bandwidth for open offer | Ericsson LM | noted |  |  |
| [**S4-200572**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200572.zip) | Correction of Provisioning Session Concept | Ericsson LM, BBC | revised |  | [**S4-200623**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111450) |
| [**S4-200573**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200573.zip) | Review of N5 / N33 parameters and discussion of Policy Template realizations | Ericsson LM | noted |  |  |
| [**S4-200574**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200574.zip) | M1d Procedure for Dynamic Policy Provisioning | Ericsson LM | noted |  |  |
| [**S4-200575**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200575.zip) | Discussion of Multi-MNO Distribution Scenario | Ericsson LM | agreed |  |  |
| [**S4-200576**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200576.zip) | Collaboration Model: Multi-MNO Distribution | Ericsson LM | revised |  | [**S4-200624**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111451) |
| [**S4-200577**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200577.zip) | API for Service Access information aquisition | Ericsson LM | noted |  |  |
| [**S4-200578**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200578.zip) | Correction of F-C Stage 3 | Ericsson LM | merged |  |  |
| [**S4-200579**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200579.zip) | Correction on xMB for MCData | Ericsson LM | revised |  | [**S4-200617**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111444) |
| [**S4-200580**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200580.zip) | Correction on Annex L.4 (MBMS Download Profile) | Ericsson LM | revised |  | [**S4-200618**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111445) |
| [**S4-200581**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200581.zip) | Report of SA4 SQ SWG conf. call on HaNTE (3rd March 2020) | SA4 SQ SWG interim Chairman | **approved** |  |  |
| [**S4-200582**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200582.zip) | Report of MBS SWG ad-hoc telco on FS\_TyTrac (31st January 2020) | SA4 MBS SWG Chairman | **approved** |  |  |
| [**S4-200583**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200583.zip) | Report of SA4 MBS SWG Telco on 5GMS3 (6th February 2020) | SA4 MBS SWG Chairman | **approved** |  |  |
| [**S4-200584**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200584.zip) | Report of SA4 MBS SWG Telco on 5GMS3 (13th February 2020) | SA4 MBS SWG Chairman | **approved** |  |  |
| [**S4-200585**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200585.zip) | Report of SA4 MBS SWG Telco on 5GMS3 (12th March 2020) | SA4 MBS SWG Chairman | **approved** |  |  |
| [**S4-200586**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200586.zip) | Report of SA4 MBS SWG Telco on 5GMS3 (27th March 2020) | SA4 MBS SWG Chairman | **approved** |  |  |
| [**S4-200587**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200587.zip) | Reply to: LS Reply on QoS mapping procedure for FLUS | current meeting | revised |  | [**S4-200690**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111512) |
| [**S4-200588**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200588.zip) | Consumption Reporting Procedure API- M1d and M5d | ENENSYS | revised |  | [**S4-200633**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111460) |
| [**S4-200589**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200589.zip) | Draft CR TS 26.238 Media Codec Profile for E\_FLUS | QUALCOMM, Incorporated | revised |  | [**S4-200642**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111469) |
| [**S4-200590**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200590.zip) | Corrections on network slicing | Tencent | agreed |  |  |
| [**S4-200591**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200591.zip) | Corrections and clarifications for consumption reporting | Tencent | revised |  | [**S4-200619**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111446) |
| [**S4-200592**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200592.zip) | Corrections to EVS Fixed-Point Source Code | Ericsson LM, Fraunhofer IIS, VoiceAge Corporation | noted |  |  |
| [**S4-200593**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200593.zip) | Network assistance provided by 5GMSu AF | Tencent | not pursued |  |  |
| [**S4-200594**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200594.zip) | Add sample percentage to 5GMSA stage 2 Consumption Reporting | BBC | agreed | [**S4-200512**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103326) |  |
| [**S4-200595**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200595.zip) | ITT4RT: Improvements of Signaling the FOV information using RTCP feedback | Tencent | not treated |  |  |
| [**S4-200596**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200596.zip) | Edge Computing for Content Hosting and Caching | KPN N.V. | noted |  |  |
| [**S4-200597**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200597.zip) | Rename Ingest Session Configuration as Content Hosting Configuration | BBC | revised | [**S4-200568**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103406) | [**S4-200625**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111452) |
| [**S4-200598**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200598.zip) | Proposed Work Plan for FS\_5GMS\_Multicast | TELUS | revised |  | [**S4-200637**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111464) |
| [**S4-200599**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200599.zip) | On the potential public collaboration for IVAS standardization | Nokia Corporation | noted |  |  |
| [**S4-200600**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200600.zip) | 5GMS3 Work Plan V0.10 | Sony Europe B.V. | revised |  | [**S4-200622**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111449) |
| [**S4-200601**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200601.zip) | 5GMSA Network Assistance | Sony Europe B.V. | not concluded |  |  |
| [**S4-200602**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200602.zip) | 5GMSA Remote Control | Sony Europe B.V., Ericsson LM | noted |  |  |
| [**S4-200603**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200603.zip) | E\_FLUS: Discovery of FLUS sinks using a Sink Discovery Server | Samsung Research America | merged |  |  |
| [**S4-200604**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200604.zip) | Discovery Server for FLUS Sinks | Samsung Research America | merged |  |  |
| [**S4-200605**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200605.zip) | Reply to: Audio ‘Headset’ Requirements in 3GPP TS 26.132 | current meeting | revised |  | [**S4-200636**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111463) |
| [**S4-200606**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200606.zip) | Comments to S4-200504 and S4-200505 on Headset Testing | Sony Corporation | postponed |  |  |
| [**S4-200607**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200607.zip) | Workflow example for FS\_FLUS\_NBMP | Tencent | noted | [**S4-200549**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103380) |  |
| [**S4-200608**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200608.zip) | Setting b=AS in presence of an open offer | Fraunhofer IIS | noted |  |  |
| [**S4-200609**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200609.zip) | ITT4RT Permanent Document - Requirements, Working Assumptions and Potential Solutions (v0.6.1) | Intel (Rapporteur) | revised | [**S4-200507**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103298) | [**S4-200650**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111477) |
| [**S4-200610**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200610.zip) | dCR 26445 Clarifications on ch-aw-recv | Orange | noted |  |  |
| [**S4-200611**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200611.zip) | Procedure for the OpenAPI implementation of the 5GMS APIs | Qualcomm India Pvt Ltd | revised |  | [**S4-200620**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111447) |
| [**S4-200612**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200612.zip) | Proposed Skeleton TR26.802 Multicast Architecture Enhancement for 5G Media Streaming | TELUS | noted |  |  |
| [**S4-200613**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200613.zip) | The resource addressing in FLUS | Tencent | revised |  | [**S4-200643**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111470) |
| [**S4-200614**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200614.zip) | List of Postponed Liaison Statements (LS) from SA4#108-e | SA4 | withdrawn |  |  |
| [**S4-200615**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200615.zip) | Interim report -Video SWG | Video SWG Chairman | not treated |  |  |
| [**S4-200616**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200616.zip) | 3GPP SA4 MBS SWG Chairman's Report for SA4#108-e | SWG MBS | **approved** |  |  |
| [**S4-200617**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200617.zip) | Correction on xMB for MCData | Ericsson LM | revised | [**S4-200579**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103449) | [**S4-200634**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111461) |
| [**S4-200618**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200618.zip) | Correction on Annex L.4 (MBMS Download Profile) | Ericsson LM | revised | [**S4-200580**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103450) | [**S4-200635**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111462) |
| [**S4-200619**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200619.zip) | Corrections and clarifications for consumption reporting | Tencent | not pursued | [**S4-200591**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103463) |  |
| [**S4-200620**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200620.zip) | Procedure for the OpenAPI implementation of the 5GMS APIs | Qualcomm India Pvt Ltd | agreed | [**S4-200611**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103507) |  |
| [**S4-200621**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200621.zip) | Guidelines and Common Types for RESTful APIs | SWG MBS | noted |  |  |
| [**S4-200622**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200622.zip) | 5GMS3 Work Plan V0.10 | Sony Europe B.V. | revised | [**S4-200600**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103473) | [**S4-200689**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111511) |
| [**S4-200623**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200623.zip) | Correction of Provisioning Session Concept | Ericsson LM, BBC | agreed | [**S4-200572**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103442) |  |
| [**S4-200624**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200624.zip) | Collaboration Model: Multi-MNO Distribution | Ericsson LM | agreed | [**S4-200576**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103446) |  |
| [**S4-200625**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200625.zip) | Rename Ingest Session Configuration as Content Hosting Configuration | BBC | agreed | [**S4-200597**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103469) |  |
| [**S4-200626**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200626.zip) | Proposed General Updates | Qualcomm Incorporated | agreed | [**S4-200557**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103391) |  |
| [**S4-200627**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200627.zip) | Corrections to Stage 2 Ingest Configuration Procedures | Qualcomm India Pvt Ltd | postponed | [**S4-200541**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103372) |  |
| [**S4-200628**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200628.zip) | Reply to: Common Media Client Data CTA-5004 (community review) | 3GPP SA4 | revised |  | [**S4-200687**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111509) |
| [**S4-200629**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200629.zip) | Corrections and clarifications for consumption reporting | Tencent | agreed |  |  |
| [**S4-200630**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200630.zip) | 5GMSA Domain Model and API Design Principles | BBC | noted | [**S4-200511**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103325) |  |
| [**S4-200631**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200631.zip) | 5G Media Streaming (5GMS); Profiles, Codecs and Formats (Release 16) | Qualcomm | agreed |  |  |
| [**S4-200632**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200632.zip) | Draft Time Plan for the EMSA Study Item v0.0.2 | Qualcomm | revised |  | [**S4-200639**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111466) |
| [**S4-200633**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200633.zip) | Consumption Reporting Procedure API- M1d and M5d | ENENSYS | agreed | [**S4-200588**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103459) |  |
| [**S4-200634**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200634.zip) | Correction on xMB for MCData | Ericsson LM | agreed | [**S4-200617**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111444) |  |
| [**S4-200635**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200635.zip) | Correction of MBMS Download Profile | Ericsson LM, Qualcomm Incorporated, BBC | agreed | [**S4-200618**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111445) |  |
| [**S4-200636**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200636.zip) | Draft reply LS on Audio Headset Requirements in 3GPP TS 26.132 | Sony Corporation | revised | [**S4-200605**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103478) | [**S4-200640**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111467) |
| [**S4-200637**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200637.zip) | Proposed Work Plan for FS\_5GMS\_Multicast | TELUS | agreed | [**S4-200598**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103470) |  |
| [**S4-200638**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200638.zip) | Proposed Work Plan for FS\_XRTraffic | Qualcomm Incorporated | agreed | [**S4-200563**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103397) |  |
| [**S4-200639**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200639.zip) | Draft Time Plan for the EMSA Study Item v0.1.0 | Qualcomm Incorporated | agreed | [**S4-200632**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111459) |  |
| [**S4-200640**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200640.zip) | Draft reply LS on Audio Headset Requirements in 3GPP TS 26.132 | Sony Corporation | revised | [**S4-200636**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111463) | [**S4-200686**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111508) |
| [**S4-200641**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200641.zip) | MTSI SWG Report during SA4#108-e | Multimedia Telephony Service for IMS (MTSI) SWG | revised |  | [**S4-200688**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111510) |
| [**S4-200642**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200642.zip) | Media Codec Profile for E\_FLUS | QUALCOMM, Incorporated | agreed | [**S4-200589**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103460) |  |
| [**S4-200643**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200643.zip) | Draft Merge Correction of F-C Stage 3 | Ericsson LM, Tencent, Samsung, Qualcomm | revised | [**S4-200613**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103512) | [**S4-200648**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111475) |
| [**S4-200644**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200644.zip) | Correction of References | Samsung R&D Institute India | agreed | [**S4-200521**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103343) |  |
| [**S4-200645**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200645.zip) | Clarification on uplink assistance | Samsung R&D Institute India | agreed | [**S4-200523**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103346) |  |
| [**S4-200646**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200646.zip) | Update, correction and clarification of text | Samsung R&D Institute India | agreed | [**S4-200525**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103348) |  |
| [**S4-200647**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200647.zip) | Update and correction of FLUS source systems | Samsung R&D Institute India | agreed | [**S4-200524**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103347) |  |
| [**S4-200648**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200648.zip) | Draft Merge Correction of F-C Stage 3 | Tencent | revised | [**S4-200643**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111470) | [**S4-200649**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111476) |
| [**S4-200649**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200649.zip) | Draft Merge Correction of F-C Stage 3 | Tencent | revised | [**S4-200648**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111475) | [**S4-200651**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111478) |
| [**S4-200650**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200650.zip) | ITT4RT Permanent Document - Requirements, Working Assumptions and Potential Solutions (v0.6.1) | Intel (Rapporteur) | agreed | [**S4-200609**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103482) |  |
| [**S4-200651**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200651.zip) | Draft Merge Correction of F-C Stage 3 | Tencent | agreed | [**S4-200649**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111476) |  |
| [**S4-200652**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200652.zip) | Time Plan for E\_FLUS Work Item v0.12.0 | QUALCOMM Incorporated (Rapporteur) | agreed | [**S4-200519**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103333) |  |
| [**S4-200653**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200653.zip) | Proposed Timeplan for ITT4RT (v0.6.0) | Intel (Rapporteur) | revised | [**S4-200506**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103297) | [**S4-200691**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200691.zip) |
| [**S4-200654**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200654.zip) | Proposed Work Plan for FS\_FLUS\_NBMP | Tencent | revised | [**S4-200548**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103379) | [**S4-200655**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111482) |
| [**S4-200655**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200655.zip) | Proposed Work Plan for FS\_FLUS\_NBMP | Tencent | agreed | [**S4-200654**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111481) |  |
| [**S4-200656**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200656.zip) | Interim report -Video SWG | Video SWG Chairman | not treated |  |  |
| [**S4-200657**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200657.zip) | (reserved) | 3GPP SA4 | withdrawn |  |  |
| [**S4-200658**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200658.zip) | (reserved) | 3GPP SA4 | withdrawn |  |  |
| [**S4-200659**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200659.zip) | (reserved) | 3GPP SA4 | withdrawn |  |  |
| [**S4-200660**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200660.zip) | (reserved) | 3GPP SA4 | withdrawn |  |  |
| [**S4-200661**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200661.zip) | Draft TR 26.955 5G Video Codec Characteristics v0.0.1 | Qualcomm Incorporated | agreed |  |  |
| [**S4-200662**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200662.zip) | LS S4-200303 on Extended Reality (XR) from SC 29/WG 11 (MPEG) | MPEG | replied to | [**S4-200303**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1087529) |  |
| [**S4-200663**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200663.zip) | Proposed Work Plan for FS\_5GVideo | Qualcomm Incorporated | revised | [**S4-200558**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103392) | [**S4-200667**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111494) |
| [**S4-200664**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200664.zip) | Draft CR26.9xx 5GVideo Scenario Template | Qualcomm Incorporated | agreed | [**S4-200560**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103394) |  |
| [**S4-200665**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200665.zip) | Draft CR26.9xx 5GVideo Scenario Full HD | Qualcomm Incorporated | agreed | [**S4-200561**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103395) |  |
| [**S4-200666**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200666.zip) | Technical Report - FS\_5GVideo | Video SWG | agreed |  |  |
| [**S4-200667**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200667.zip) | Proposed Work Plan for FS\_5GVideo | Qualcomm Incorporated | agreed | [**S4-200663**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111490) |  |
| [**S4-200668**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200668.zip) | New SID on 5G Glass-type AR/MR Devices | Samsung Electronics France SA | noted | [**S4-200520**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103339) |  |
| [**S4-200669**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200669.zip) | Reply to: Liaison Statement from SC 29/WG 11 to 3GPP SA4 on CMAF [SC 29/WG 11 N 19163] | 3GPP SA4 | revised |  | [**S4-200684**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111506) |
| [**S4-200670**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200670.zip) | Report from the Video SWG Chairman during SA4#108-e | Video SWG | revised |  | [**S4-200683**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111505) |
| [**S4-200672**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200672.zip) | List of Postponed Liaison Statements (LS) from SA4#108-e | MCC | noted |  |  |
| [**S4-200674**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200674.zip) | Report from the EVS SWG Chairman during SA4#108-e | EVS SWG | **approved** |  |  |
| [**S4-200676**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200676.zip) | Proposals for data collection of HaNTE – test methods | Qualcomm Incorporated | agreed | [**S4-200565**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103399) |  |
| [**S4-200677**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200677.zip) | Draft report of SA4#107 held in Wroclaw | 3GPP MCC | **approved** | [**S4-200502**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103147) |  |
| [**S4-200679**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200679.zip) | LS S4-200303 on Extended Reality (XR) from SC 29/WG 11 (MPEG) | current meeting | revised |  | [**S4-200685**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111507) |
| [**S4-200680**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200680.zip) | Issues for immediate consideration | SA4 Chairman | noted |  |  |
| [**S4-200681**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200681.zip) | SQ SWG report at SA4#108-e | SQ SWG Interim chairman | **approved** |  |  |
| [**S4-200683**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200683.zip) | Report from the Video SWG Chairman during SA4#108-e | Video SWG | **approved** | [**S4-200670**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111497) |  |
| [**S4-200684**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200684.zip) | Reply to: Liaison Statement from SC 29/WG 11 to 3GPP SA4 on CMAF [SC 29/WG 11 N 19163] | 3GPP SA4 | **approved** | [**S4-200669**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111496) |  |
| [**S4-200685**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200685.zip) | LS S4-200303 on Extended Reality (XR) from SC 29/WG 11 (MPEG) | 3GPP SA4 | **approved** | [**S4-200679**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111502) |  |
| [**S4-200686**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200686.zip) | Draft reply LS on Audio Headset Requirements in 3GPP TS 26.132 | Sony Corporation | **approved** | [**S4-200640**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111467) |  |
| [**S4-200687**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200687.zip) | Reply to: Common Media Client Data CTA-5004 (community review) | 3GPP SA4 | **approved** | [**S4-200628**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111455) |  |
| [**S4-200688**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200688.zip) | MTSI SWG Report during SA4#108-e | Multimedia Telephony Service for IMS (MTSI) SWG | **approved** | [**S4-200641**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111468) |  |
| [**S4-200689**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200689.zip) | 5GMS3 Work Plan V0.10 | Sony Europe B.V. | agreed | [**S4-200622**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1111449) |  |
| [**S4-200690**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200690.zip) | LS reply on QoS mapping procedure | Ericsson LM | **approved** | [**S4-200587**](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionId=1103457) |  |
| [**S4-200691**](http://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_108-e/Docs/S4-200691.zip) | Proposed Timeplan for ITT4RT (v0.6.0) | Intel (Rapporteur) | agreed |  |  |
| S4-200016 | Liaison Statement from SC 29/WG 11 to 3GPP SA4 on additional HEVC Media Profiles [SC 29/WG 11 N 18931] | ISO/IEC JTC 1/SC 29 | noted | - | - |
| S4-200301 | Liaison Statement from SC 29/WG 11 to 3GPP SA2, 3GPP SA4, 3GPP SA6 on NBMP [SC 29/WG 11 N 19052] | ISO/IECJTC 1/SC 29 Coding of audio, picture, multimedia and hypermedia information Secretariat: JISC (Japan) | noted | - | - |
| S4-200302 | Liaison Statement from SC 29/WG 11 to 3GPP SA4 on DASH [SC 29/WG 11 N 19158] | ISO/IECJTC 1/SC 29 Coding of audio, picture, multimedia and hypermedia information Secretariat: JISC (Japan) | noted | - | - |

### A2: Tdoc decision timing

|  |  |  |
| --- | --- | --- |
| Document | Date/time UTC | Decision |
| S4-200016 | 2020-04-07 20:48:55 | noted |
| S4-200301 | 2020-04-07 20:55:26 | noted |
| S4-200302 | 2020-04-07 20:57:59 | noted |
| S4-200303 | 2020-04-09 08:48:48 | reserved |
| S4-200303 | 2020-04-09 08:53:54 | revised |
| S4-200501 | 2020-04-02 17:06:46 | approved |
| S4-200502 | 2020-04-03 15:35:12 | approved |
| S4-200502 | 2020-04-08 18:49:11 | revised |
| S4-200503 | 2020-04-08 20:02:23 | noted |
| S4-200504 | 2020-04-08 21:56:05 | postponed |
| S4-200505 | 2020-04-08 21:56:11 | postponed |
| S4-200506 | 2020-04-08 22:27:50 | revised |
| S4-200508 | 2020-04-08 22:28:59 | agreed |
| S4-200509 | 2020-04-05 01:04:06 | agreed |
| S4-200509 | 2020-04-06 09:26:51 | not concluded |
| S4-200509 | 2020-04-08 20:13:50 | agreed |
| S4-200510 | 2020-04-05 01:04:55 | agreed |
| S4-200511 | 2020-04-07 21:59:59 | revised |
| S4-200513 | 2020-04-07 21:13:41 | agreed |
| S4-200514 | 2020-04-07 22:01:36 | agreed |
| S4-200515 | 2020-04-04 10:24:32 | approved |
| S4-200516 | 2020-04-04 10:14:55 | approved |
| S4-200517 | 2020-04-04 10:33:58 | approved |
| S4-200518 | 2020-04-04 10:53:21 | approved |
| S4-200519 | 2020-04-08 22:11:12 | revised |
| S4-200520 | 2020-04-05 00:06:38 | agreed |
| S4-200520 | 2020-04-08 22:08:58 | revised |
| S4-200521 | 2020-04-07 15:37:32 | revised |
| S4-200522 | 2020-04-09 14:04:14 | postponed |
| S4-200523 | 2020-04-07 15:40:06 | revised |
| S4-200524 | 2020-04-07 15:43:27 | revised |
| S4-200525 | 2020-04-07 15:50:11 | revised |
| S4-200526 | 2020-04-04 21:46:49 | approved |
| S4-200526 | 2020-04-04 21:47:22 | noted |
| S4-200527 | 2020-04-03 15:33:12 | noted |
| S4-200528 | 2020-04-09 16:04:46 | agreed |
| S4-200529 | 2020-04-08 20:02:26 | noted |
| S4-200530 | 2020-04-05 00:55:32 | noted |
| S4-200531 | 2020-04-04 22:37:45 | noted |
| S4-200532 | 2020-04-04 21:48:16 | noted |
| S4-200533 | 2020-04-08 08:52:49 | replied to |
| S4-200534 | 2020-04-04 21:52:29 | postponed |
| S4-200534 | 2020-04-04 21:52:38 | available |
| S4-200534 | 2020-04-09 16:11:30 | replied to |
| S4-200535 | 2020-04-05 00:58:32 | noted |
| S4-200536 | 2020-04-08 21:58:05 | replied to |
| S4-200537 | 2020-04-05 01:47:18 | available |
| S4-200537 | 2020-04-08 08:54:02 | replied to |
| S4-200538 | 2020-04-05 01:47:58 | available |
| S4-200538 | 2020-04-07 21:37:51 | postponed |
| S4-200539 | 2020-04-09 16:13:20 | not pursued |
| S4-200540 | 2020-04-09 16:14:03 | noted |
| S4-200541 | 2020-04-08 08:57:34 | revised |
| S4-200542 | 2020-04-08 21:45:07 | noted |
| S4-200543 | 2020-04-08 22:32:12 | agreed |
| S4-200544 | 2020-04-08 21:54:09 | noted |
| S4-200545 | 2020-04-05 01:05:31 | not treated |
| S4-200546 | 2020-04-08 22:32:16 | agreed |
| S4-200547 | 2020-04-03 15:34:29 | noted |
| S4-200548 | 2020-04-08 22:33:09 | revised |
| S4-200548 | 2020-04-08 22:33:14 | not pursued |
| S4-200548 | 2020-04-08 22:33:51 | revised |
| S4-200549 | 2020-04-08 22:34:33 | not treated |
| S4-200549 | 2020-04-08 22:34:37 | not pursued |
| S4-200550 | 2020-04-07 16:01:37 | not concluded |
| S4-200550 | 2020-04-07 16:36:06 | merged |
| S4-200550 | 2020-04-07 16:36:25 | revised |
| S4-200550 | 2020-04-07 16:37:05 | merged |
| S4-200550 | 2020-04-08 22:15:10 | not pursued |
| S4-200551 | 2020-04-07 16:37:36 | merged |
| S4-200551 | 2020-04-07 16:38:16 | revised |
| S4-200551 | 2020-04-08 22:15:27 | not pursued |
| S4-200552 | 2020-04-08 22:35:02 | noted |
| S4-200553 | 2020-04-08 21:45:42 | noted |
| S4-200553 | 2020-04-09 17:40:29 | revised |
| S4-200553 | 2020-04-09 17:41:03 | agreed |
| S4-200553 | 2020-04-09 18:12:15 | noted |
| S4-200554 | 2020-04-08 21:45:51 | noted |
| S4-200555 | 2020-04-08 20:19:17 | merged |
| S4-200555 | 2020-04-08 20:20:46 | revised |
| S4-200555 | 2020-04-08 20:40:28 | merged |
| S4-200555 | 2020-04-08 20:41:24 | noted |
| S4-200555 | 2020-04-08 20:49:57 | merged |
| S4-200556 | 2020-04-08 20:23:57 | merged |
| S4-200557 | 2020-04-08 18:08:47 | revised |
| S4-200557 | 2020-04-08 20:21:03 | merged |
| S4-200557 | 2020-04-08 20:22:44 | noted |
| S4-200557 | 2020-04-08 20:22:47 | merged |
| S4-200557 | 2020-04-08 20:47:33 | noted |
| S4-200557 | 2020-04-08 20:50:04 | merged |
| S4-200558 | 2020-04-08 20:51:28 | revised |
| S4-200559 | 2020-04-05 01:06:04 | revised |
| S4-200559 | 2020-04-08 22:06:03 | agreed |
| S4-200560 | 2020-04-07 21:27:22 | agreed |
| S4-200560 | 2020-04-07 21:27:29 | available |
| S4-200560 | 2020-04-08 22:06:36 | revised |
| S4-200561 | 2020-04-08 22:07:07 | revised |
| S4-200562 | 2020-04-08 22:07:52 | agreed |
| S4-200563 | 2020-04-08 21:51:06 | revised |
| S4-200564 | 2020-04-08 21:52:00 | noted |
| S4-200565 | 2020-04-08 16:18:53 | revised |
| S4-200566 | 2020-04-07 11:29:25 | agreed |
| S4-200567 | 2020-04-09 13:04:21 | endorsed |
| S4-200567 | 2020-04-09 17:39:37 | agreed |
| S4-200567 | 2020-04-09 17:39:40 | endorsed |
| S4-200569 | 2020-04-05 00:51:10 | not treated |
| S4-200570 | 2020-04-05 01:11:58 | agreed |
| S4-200571 | 2020-04-08 22:10:07 | agreed |
| S4-200571 | 2020-04-08 22:10:28 | noted |
| S4-200572 | 2020-04-07 21:40:31 | revised |
| S4-200573 | 2020-04-08 21:45:22 | noted |
| S4-200574 | 2020-04-08 21:45:27 | noted |
| S4-200575 | 2020-04-08 18:10:05 | agreed |
| S4-200576 | 2020-04-07 21:41:07 | revised |
| S4-200577 | 2020-04-08 21:45:58 | noted |
| S4-200578 | 2020-04-07 16:38:34 | merged |
| S4-200578 | 2020-04-07 16:38:43 | revised |
| S4-200578 | 2020-04-08 22:15:56 | merged |
| S4-200579 | 2020-04-07 21:17:06 | revised |
| S4-200580 | 2020-04-07 21:18:11 | revised |
| S4-200581 | 2020-04-04 18:49:53 | approved |
| S4-200582 | 2020-04-04 19:11:38 | approved |
| S4-200583 | 2020-04-04 20:38:04 | agreed |
| S4-200583 | 2020-04-04 20:54:10 | approved |
| S4-200584 | 2020-04-04 20:58:29 | approved |
| S4-200585 | 2020-04-04 20:59:55 | approved |
| S4-200586 | 2020-04-05 00:54:51 | approved |
| S4-200587 | 2020-04-05 01:11:30 | agreed |
| S4-200587 | 2020-04-06 13:18:32 | not concluded |
| S4-200587 | 2020-04-07 21:19:35 | agreed |
| S4-200587 | 2020-04-09 14:35:35 | revised |
| S4-200587 | 2020-04-09 16:11:50 | reserved |
| S4-200587 | 2020-04-09 16:12:41 | revised |
| S4-200588 | 2020-04-08 21:46:38 | revised |
| S4-200589 | 2020-04-07 15:51:20 | revised |
| S4-200589 | 2020-04-08 22:18:09 | agreed |
| S4-200589 | 2020-04-08 22:18:22 | revised |
| S4-200590 | 2020-04-08 18:10:51 | agreed |
| S4-200591 | 2020-04-07 18:01:41 | withdrawn |
| S4-200591 | 2020-04-07 18:05:36 | noted |
| S4-200591 | 2020-04-07 21:20:52 | revised |
| S4-200592 | 2020-04-07 11:36:49 | noted |
| S4-200593 | 2020-04-08 18:11:12 | agreed |
| S4-200593 | 2020-04-09 18:15:33 | not pursued |
| S4-200594 | 2020-04-07 21:22:04 | agreed |
| S4-200595 | 2020-04-08 22:32:27 | not treated |
| S4-200596 | 2020-04-08 21:54:18 | noted |
| S4-200597 | 2020-04-07 21:43:38 | revised |
| S4-200598 | 2020-04-08 21:49:20 | revised |
| S4-200599 | 2020-04-07 12:36:16 | noted |
| S4-200600 | 2020-04-07 21:23:04 | revised |
| S4-200601 | 2020-04-07 21:44:39 | partially approved |
| S4-200602 | 2020-04-08 21:39:33 | noted |
| S4-200603 | 2020-04-07 16:39:51 | merged |
| S4-200603 | 2020-04-07 16:40:00 | revised |
| S4-200603 | 2020-04-08 22:20:29 | merged |
| S4-200604 | 2020-04-07 16:44:51 | endorsed |
| S4-200604 | 2020-04-07 16:44:54 | merged |
| S4-200604 | 2020-04-07 16:45:02 | revised |
| S4-200604 | 2020-04-08 22:21:35 | merged |
| S4-200605 | 2020-04-04 23:12:18 | available |
| S4-200605 | 2020-04-07 21:24:31 | revised |
| S4-200605 | 2020-04-08 21:16:56 | replied to |
| S4-200606 | 2020-04-08 21:56:23 | postponed |
| S4-200607 | 2020-04-08 22:34:52 | noted |
| S4-200608 | 2020-04-08 22:10:23 | noted |
| S4-200609 | 2020-04-08 22:31:05 | revised |
| S4-200610 | 2020-04-07 11:49:51 | noted |
| S4-200611 | 2020-04-08 18:24:01 | revised |
| S4-200612 | 2020-04-08 21:49:48 | noted |
| S4-200613 | 2020-04-07 16:45:17 | merged |
| S4-200613 | 2020-04-07 16:45:25 | revised |
| S4-200613 | 2020-04-08 22:26:34 | merged |
| S4-200614 | 2020-04-05 00:55:07 |  |
| S4-200615 | 2020-04-05 00:55:13 | not treated |
| S4-200616 | 2020-04-09 13:16:54 | approved |
| S4-200617 | 2020-04-09 16:21:57 | revised |
| S4-200618 | 2020-04-09 16:23:34 | revised |
| S4-200619 | 2020-04-07 21:45:59 | not pursued |
| S4-200620 | 2020-04-08 21:43:25 | agreed |
| S4-200621 | 2020-04-08 21:44:29 | noted |
| S4-200622 | 2020-04-08 21:41:52 | agreed |
| S4-200622 | 2020-04-09 13:43:24 | revised |
| S4-200623 | 2020-04-07 21:47:13 | agreed |
| S4-200624 | 2020-04-07 21:47:26 | agreed |
| S4-200625 | 2020-04-09 16:29:14 | agreed |
| S4-200626 | 2020-04-08 18:25:34 | agreed |
| S4-200626 | 2020-04-08 20:46:02 | noted |
| S4-200626 | 2020-04-08 20:46:05 | agreed |
| S4-200627 | 2020-04-09 13:34:25 | postponed |
| S4-200628 | 2020-04-09 13:22:08 | agreed |
| S4-200628 | 2020-04-09 13:23:14 | revised |
| S4-200629 | 2020-04-07 21:47:56 | agreed |
| S4-200630 | 2020-04-08 18:26:07 | noted |
| S4-200631 | 2020-04-09 14:12:51 | agreed |
| S4-200632 | 2020-04-08 21:53:37 | revised |
| S4-200633 | 2020-04-08 21:46:46 | agreed |
| S4-200634 | 2020-04-08 22:42:37 | agreed |
| S4-200635 | 2020-04-09 14:16:01 | agreed |
| S4-200636 | 2020-04-08 21:55:33 | revised |
| S4-200637 | 2020-04-09 16:30:04 | agreed |
| S4-200638 | 2020-04-09 16:31:15 | agreed |
| S4-200639 | 2020-04-09 15:57:39 | agreed |
| S4-200640 | 2020-04-09 12:52:02 | reserved |
| S4-200640 | 2020-04-09 12:54:56 | revised |
| S4-200640 | 2020-04-09 18:04:30 | agreed |
| S4-200640 | 2020-04-09 18:28:09 | revised |
| S4-200641 | 2020-04-09 13:28:13 | revised |
| S4-200642 | 2020-04-07 15:57:09 | reserved |
| S4-200642 | 2020-04-07 15:57:46 | agreed |
| S4-200642 | 2020-04-07 15:57:57 | revised |
| S4-200642 | 2020-04-07 15:58:38 | reserved |
| S4-200642 | 2020-04-07 21:25:33 | agreed |
| S4-200644 | 2020-04-08 22:11:53 | agreed |
| S4-200645 | 2020-04-08 22:13:08 | agreed |
| S4-200646 | 2020-04-08 22:37:21 | agreed |
| S4-200647 | 2020-04-08 22:13:56 | agreed |
| S4-200648 | 2020-04-07 21:35:14 | revised |
| S4-200649 | 2020-04-08 22:17:06 | revised |
| S4-200650 | 2020-04-08 22:31:12 | not pursued |
| S4-200650 | 2020-04-09 14:56:24 | agreed |
| S4-200651 | 2020-04-08 22:17:18 | agreed |
| S4-200652 | 2020-04-09 14:44:11 | agreed |
| S4-200653 | 2020-04-08 22:28:05 | not pursued |
| S4-200653 | 2020-04-09 14:53:27 | revised |
| S4-200654 | 2020-04-08 22:33:58 | not pursued |
| S4-200654 | 2020-04-09 15:00:17 | revised |
| S4-200654 | 2020-04-09 17:47:41 | not pursued |
| S4-200655 | 2020-04-09 15:02:02 | agreed |
| S4-200659 | 2020-04-08 18:28:33 | agreed |
| S4-200660 | 2020-04-08 18:28:25 | agreed |
| S4-200660 | 2020-04-08 18:28:30 | available |
| S4-200661 | 2020-04-05 01:50:15 | revised |
| S4-200661 | 2020-04-05 01:50:41 | agreed |
| S4-200662 | 2020-04-09 08:54:21 | replied to |
| S4-200663 | 2020-04-08 20:51:45 | revised |
| S4-200664 | 2020-04-09 14:59:17 | reserved |
| S4-200664 | 2020-04-09 16:39:55 | agreed |
| S4-200665 | 2020-04-09 16:42:25 | agreed |
| S4-200666 | 2020-04-09 12:36:06 | agreed |
| S4-200667 | 2020-04-08 20:51:56 | agreed |
| S4-200668 | 2020-04-09 12:39:28 | noted |
| S4-200668 | 2020-04-09 17:36:34 | agreed |
| S4-200669 | 2020-04-09 12:27:16 | revised |
| S4-200670 | 2020-04-09 12:22:38 | revised |
| S4-200672 | 2020-04-07 21:01:54 | noted |
| S4-200674 | 2020-04-09 13:11:02 | agreed |
| S4-200674 | 2020-04-09 13:11:03 | approved |
| S4-200675 | 2020-04-09 16:54:06 | approved |
| S4-200676 | 2020-04-09 13:01:38 | agreed |
| S4-200677 | 2020-04-08 18:49:40 | approved |
| S4-200678 | 2020-04-08 20:43:30 | noted |
| S4-200678 | 2020-04-08 20:43:38 | reserved |
| S4-200678 | 2020-04-09 16:54:18 | approved |
| S4-200679 | 2020-04-09 12:29:32 | revised |
| S4-200680 | 2020-04-08 23:08:00 | noted |
| S4-200681 | 2020-04-09 16:49:41 | approved |
| S4-200682 | 2020-04-09 16:49:57 | approved |
| S4-200683 | 2020-04-09 12:22:42 | approved |
| S4-200684 | 2020-04-09 12:27:21 | approved |
| S4-200685 | 2020-04-09 16:50:14 | approved |
| S4-200686 | 2020-04-09 12:55:17 | approved |
| S4-200687 | 2020-04-09 16:50:34 | approved |
| S4-200688 | 2020-04-09 14:31:06 | agreed |
| S4-200688 | 2020-04-09 14:33:13 | approved |
| S4-200689 | 2020-04-09 14:27:01 | agreed |
| S4-200690 | 2020-04-09 14:35:38 | approved |
| S4-200691 | 2020-04-09 14:53:40 | agreed |

## Annex B: List of change requests

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Document | Title | Source | Spec | CR | Rev | Rel | Cat | WI | Decision |
| S4-200570 | Correction of 3gpp-qos-hint examples | Ericsson LM | 26.114 | 0497 | - | Rel-16 | F | 5G\_MEDIA\_MTSI\_ext | agreed |
| S4-200504 | Clarifying nature of headset requirements | Samsung Electronics Polska | 26.131 | 0081 | - | Rel-16 | F | TEI16 | postponed |
| S4-200505 | Handling insert-type headsets that not fitting ear simulators properly | Samsung Electronics Polska | 26.132 | 0104 | - | Rel-16 | F | TEI16 | postponed |
| S4-200642 | Media Codec Profile for E\_FLUS | QUALCOMM, Incorporated | 26.238 | 0021 | - | Rel-16 | - | E\_FLUS | agreed |
| S4-200647 | Update and correction of FLUS source systems | Samsung R&D Institute India | 26.238 | 0024 | - | Rel-16 | F | E\_FLUS | agreed |
| S4-200521 | Correction of References | Samsung R&D Institute India | 26.238 | 0018 | - | Rel-16 | F | E\_FLUS | revised |
| S4-200644 | Correction of References | Samsung R&D Institute India | 26.238 | 0018 | 1 | Rel-16 | D | E\_FLUS | agreed |
| S4-200645 | Clarification on uplink assistance | Samsung R&D Institute India | 26.238 | 0022 | - | Rel-16 | F | E\_FLUS | agreed |
| S4-200646 | Update, correction and clarification of text | Samsung R&D Institute India | 26.238 | 0023 | - | Rel-16 | D | E\_FLUS | agreed |
| S4-200550 | Sink Capabilities in FLUS | Tencent | 26.238 | 0019 | - | Rel-16 | C | E\_FLUS | not pursued |
| S4-200551 | Sink Configuration in FLUS | Tencent | 26.238 | 0020 | - | Rel-16 | F | E\_FLUS | not pursued |
| S4-200539 | CR on Domain Model for Uplink Streaming | Qualcomm India Pvt Ltd | 26.501 | 0013 | - | Rel-16 | F | 5GMSA | not pursued |
| S4-200541 | Corrections to Stage 2 Ingest Configuration Procedures | Qualcomm India Pvt Ltd | 26.501 | 0014 | - | Rel-16 | F | 5GMSA | revised |
| S4-200627 | Corrections to Stage 2 Ingest Configuration Procedures | Qualcomm India Pvt Ltd | 26.501 | 0014 | 1 | Rel-16 | F | 5GMSA | postponed |
| S4-200590 | Corrections on network slicing | Tencent | 26.501 | 0015 | - | Rel-16 | F | 5GMSA | agreed |
| S4-200591 | Corrections and clarifications for consumption reporting | Tencent | 26.501 | 0016 | - | Rel-16 | F | 5GMSA | revised |
| S4-200619 | Corrections and clarifications for consumption reporting | Tencent | 26.501 | 0016 | 1 | Rel-16 | F | 5GMSA | not pursued |
| S4-200593 | Network assistance provided by 5GMSu AF | Tencent | 26.501 | 0017 | - | Rel-16 | F | 5GMSA | not pursued |
| S4-200549 | Workflow example for FS\_FLUS\_NBMP | Tencent | 26.939 | 0009 | - | Rel-17 | B | FLUS | not pursued |
| S4-200635 | Correction of MBMS Download Profile | Ericsson LM, Qualcomm Incorporated, BBC | 26.346 | 632 |  | Rel-16 | F | TEI16 | agreed |

## Annex C: Lists of liaisons

### C1: Incoming liaison statements

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Document | Original | Title | From | Decision | Reply TDoc |
| S4-200016 |  | Liaison Statement from SC 29/WG 11 to 3GPP SA4 on additional HEVC Media Profiles [SC 29/WG 11 N 18931] | ISO/IEC JTC 1/SC 29 | noted | (none) |
| S4-200301 |  | Liaison Statement from SC 29/WG 11 to 3GPP SA2, 3GPP SA4, 3GPP SA6 on NBMP [SC 29/WG 11 N 19052] | ISO/IECJTC 1/SC 29 Coding of audio, picture, multimedia and hypermedia information Secretariat: JISC (Japan) | noted | (none) |
| S4-200302 |  | Liaison Statement from SC 29/WG 11 to 3GPP SA4 on DASH [SC 29/WG 11 N 19158] | ISO/IECJTC 1/SC 29 Coding of audio, picture, multimedia and hypermedia information Secretariat: JISC (Japan) | noted | (none) |
| S4-200303 |  | Postponed LS from SA4#107 on MPEG XR | MPEG | revised | (none) |
| S4-200530 |  | Reply LS on support for eCall over NR | TSG SA | noted | (none) |
| S4-200531 |  | LS/o on synchronization of Y.DNI-fr “Framework and Requirements of Decentralized Trustworthy Network Infrastructure” in Q2/13 | ITU-T Study Group 13 | noted | (none) |
| S4-200532 |  | LS on support for eCall over NR | SA WG2 | noted | (none) |
| S4-200533 |  | Common Media Client Data CTA-5004 (community review) | Consumer Technology Association’s WAVE | replied to | S4-200687 |
| S4-200534 |  | LS Reply on QoS mapping procedure for FLUS | CT WG3 | replied to | S4-200690 |
| S4-200535 |  | LS about the availability of ISG ARF reference architecture for an AR solution | ETSI ISG ARF (Augmented Reality Framework) | noted | (none) |
| S4-200536 |  | Liaison Statement from SC 29/WG 11 to 3GPP SA4 on CMAF [SC 29/WG 11 N 19163] | ISO/IEC JTC 1/SC 29/WG 11 | replied to | S4-200684 |
| S4-200537 |  | Audio ‘Headset’ Requirements in 3GPP TS 26.132 | GCF CAG#61 | replied to | S4-200686 |
| S4-200538 |  | Liaison to 3GPP SA4  PHASE 1 TECHNICAL SPECIFICATION ON ABR MULTICAST | DVB Technical Module, TM-Mcast | postponed | (none) |
| S4-200662 |  | Postponed LS from SA4#107 on MPEG XR | MPEG | replied to | S4-200685 |

### C2: Outgoing liaison statements

|  |  |
| --- | --- |
| Tdoc | Title |
| S4-200684 | Reply to: Liaison Statement from SC 29/WG 11 to 3GPP SA4 on CMAF [SC 29/WG 11 N 19163] |
| S4-200685 | LS S4-200303 on Extended Reality (XR) from SC 29/WG 11 (MPEG) |
| S4-200686 | Draft reply LS on Audio Headset Requirements in 3GPP TS 26.132 |
| S4-200687 | Reply to: Common Media Client Data CTA-5004 (community review) |
| S4-200690 | LS reply on QoS mapping procedure |

## Annex D: List of agreed/approved new and revised Work Items

|  |  |  |  |
| --- | --- | --- | --- |
| Document | Title | Source | new/revised |
| S4-200668 | New SID on 5G Glass-type AR/MR Devices | Samsung Electronics France SA | SID new |
| S4-200508 | Updated ITT4RT WID | Intel, Nokia Corporation, Huawei Technologies Co. Ltd. | WID revised |

## Annex E: List of draft Technical Specifications and Reports

|  |  |  |  |
| --- | --- | --- | --- |
| Document | Spec | vers | Doc title |
| S4-200509 | 26.512 | 1.0.1 | Draft TS 26.512 5G Media Streaming (5GMS); Protocols |
| S4-200510 | 26.511 | 1.2.0 | Draft TR 26.511 5GMS Profiles, Codecs and Formats v1.2.0 |