**3GPP TSG-SA WG4 Meeting #131 S4-250343**

**Geneva, Switzerland, 17 – 21 February 2025**

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**Title: [Draft] LS on Advanced Media Delivery**

**Response to: None**

**Release: Rel-19**

**Work Item: AMD-ARCH-MED**

**Source: SA4**

**To: CT3, CT4**

**Cc: SA2**

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**Attachments:**

* 26501-0101revX: Common Client Metadata
* 26501-0102revX: Distributing encrypted and high-value content
* 26501-0103revX: Media delivery from multiple service endpoints/locations
* 26501-0104revX: Improved QoS support for Media Streaming services
* 26501-0107revX: Multi-Access Media Delivery
* 26502-0033revX: In-session Unicast Repair for MBS Object Distribution
* 26502-0034revX: MBS User Service and Delivery Protocols for eMBMS
* 26502-0035revX: Selected MBMS Functionalities not supported in MBS

# 1 Overall description

During SA4#131, SA4 completed the Work Item on “Stage 2 for Advanced Media Delivery”. The work item is based on a feasibility study FS\_AMD. Relevant CRs were agreed during the recent SA4 meeting and will be sent to SA#107 for approval. Impacted specifications are:

* TS 26.501 for 5G Media Streaming
* TS 26.502 for MBS User services

SA4 also agreed a stage-3 work item to address the relevant protocol and format extensions for Advanced Media Delivery. However, for a subset of the new features, impacts to stage-3 specifications under change control of CT3 and/or CT4 are identified in the following tables.

SA4 kindly asks CT3 and CT4 to address the relevant extensions in the respective stage-3 specifications.

## 1.1 Impacts arising from TS 26.501 Release 19

|  |  |  |
| --- | --- | --- |
| CR# | CR title | Initial assessment of impact(s) |
| 0101revX | Common Client Metadata | Although not explicitly shown or described in figure 5.13.2-1, should the 5GMSd AF represent an untrusted network entity and the NWDAF represent a trusted network entity, the NWDAF’s subscription to receive processed client data events from the Data Collection AF instantiated in the 5GMSd AF is mediated in the southbound direction by the Network Exposure Function (NEF) through the *Nnef\_EventExposure* service as specified in TS 29.591 to enable event notifications as described in step 10. |
| 0102revX | Distributing encrypted and high-value content | No impacts identified |
| 0103revX | Media delivery from multiple service endpoints/locations | No impacts identified |
| 0104revX | Improved QoS support for Media Streaming services | ? |
| 0107revX | Multi-Access Media Delivery | No impacts identified |

## 1.2 Impacts arising from TS 26.502 Release 19

The agreed Release 19 changes to the static information model for MBS User Services are highlighted in red in the figure below.



|  |  |  |
| --- | --- | --- |
| CR# | CR title | Initial assessment of impact(s) |
| 0033revX | In-session Unicast Repair for MBS Object Distribution | Two new MBS Distribution Session baseline parameters are added to table 4.5.6-2 of TS 26.502 to support pull- and push-based ingest by the MBS AS at new reference point MBS-12.   * In the case of pull-based object ingest by the MBS AS from the MBSTF, the MBSTF allocates an *Object repair exposure base URL* when the MBSF configures an MBS Distribution Session in the MBSTF, and the value of the parameter is returned it to the MBSF so that the MBS AS can be configured to use it to pull objects. * In the case of push-based object ingest from the MBSTF to the MBS AS, the MBS AS nominates a push endpoint and this *Object repair ingest base URL* needs to be communicated to the MBSTF.   These parameters are therefore mutually exclusive.  **They both impact TS 29.581**, the stage-3 specification for reference point **Nmb2**.  Because they are internal to the MBS System, neither parameter is communicated back to the MBS Application Provider at reference point **Nmb10**. Hence, **there is no impact on TS 29.580**. |
| 0034revX | MBS User Service and Delivery Protocols for eMBMS | No impacts identified |
| 0035revX | Selected MBMS Functionalities not supported in MBS | A new client-facing time service is defined as a new functionality of the MBS AS. Zero or more *Time service endpoints* may be allocated by the MBSF and associated with an MBS Distribution Session.   * A (possibly empty) set of time service endpoints needs to be communicated to the MBS Client in an MBS User Service Announcement at reference point MBS‑4. **This impacts TS 26.517** which is under SA4 control. One potential solution is to add the necessary parameter to the *DistributionSessionDescription* data structure, which is referenced by the *UserServiceDescription* data structure. * A (possibly empty) set of time service endpoints needs to be exposed back to the MBS Application Provider at reference point **Nmb10** in response to the provisioning of an MBS Distribution Session so that they can be advertised to the MBS-Aware Application at reference point MBS‑8. **This impacts TS 29.580.** However, one potential solution is to rely on the updated *UserServiceDescription* data structure in TS 26.517 described above to achieve exposure at reference point **Nmb10** since this is already referenced by the data structures in TS 29.580 to facilitate the passing of the MBS User Service Announcement back to the MBS Application Provider. * A (possibly empty) set of time service endpoints needs to be configured in the MBSTF at reference point **Nmb2** so that the MBSTF remains synchronised with its MBS Clients. **This impacts TS 29.581.** Because the *UserServiceDescription* data structure is not exposed to the MBSTF at reference point **Nmb2**, a separate solution is required at this reference point.   The protocol of the time service, and hence the representation of service endpoint addresses, will be agreed by SA4 as part of its stage-3 normative Work Item. |

# 2 Actions

**To CT3, CT4**

**ACTION:** SA4 kindly asks CT3 and CT4 to take the above information into account and address the relevant actions in corresponding stage-3 specifications.

# 3 Dates of next TSG SA WG4 meetings

TSG SA WG4#131-bis-e 11th – 17th April 2025 online

TSG SA WG4#132 19th – 23rd May 2025 Fukuoka, JP

TSG SA WG4#133-e 21st – 25th July 2025 online