**3GPP TSG-SA4 Meeting #117e *S4-220xxx***

**Electronic meeting, Telco, February 14-23, 2022**

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| *CR-Form-v12.0* |
| **Draft CHANGE REQUEST** |
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|  | **26.247** | **CR** |  | **rev** |  | **Current version:** | **16.5.1** |  |
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| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* |
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| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network | **X** |

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| ***Title:***  | Requirement on UE Behavior regarding QoE Measurement and Reporting |
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| ***Source to WG:*** |  Qualcomm Incorporated |
| ***Source to TSG:*** | SA4 |
|  |  |
| ***Work item code:*** | TEI17 |  | ***Date:*** | 2022-02-11 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** | Rel-17 |
|  | *Use one of the following categories:****F*** *(correction)****A*** *(mirror corresponding to a change in an earlier release)****B*** *(addition of feature),* ***C*** *(functional modification of feature)****D*** *(editorial modification)*Detailed explanations of the above categories canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)Rel-12 (Release 12)**Rel-13 (Release 13)Rel-14 (Release 14)Rel-15 (Release 15)Rel-16 (Release 16)* |
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| ***Reason for change:*** | Clause 10.1 contains the following requirement on UE behavior with regards to QoE measurement and reporting:“The QoE configuration shall only be checked by the client when each session starts, and thus all logging and reporting criterias for an ongoing session shall be unaffected by any QoE configuration changes received during that session. This also includes evaluation of any filtering criterias, such as geographical filtering, which shall only be done when the session starts. Thus changes to the QoE configuration will only affect sessions started after these configuration changes have been received.”The above description contains ambiguity subject to different interpretations for implementation. In particular, RAN2 has informed SA4 of lack of common understanding of that requirement in RAN2 which could impede progress of their Rel-17 NR\_QoE work item.Shortcomings and defects in the wording of the requirements are cited below:* It is unclear whether the word “session” in the above requirement language refers to a “streaming session” or a “QoE (measurement and reporting) session”, and should be clarified since these two session types, although related, are not equivalent.
* It is unclear whether there is a semantics difference between the words “check” and “evaluate” in the requirement description, and if so, preferably a single term should be used.
* The phrase “thus all logging and reporting criterias for an ongoing session shall be unaffected by any QoE configuration changes received during that session” in the 1st sentence seems to be missing the key word “evaluation” before “all”.
* What does “This” in the 2nd sentence of the requirement refer to – the first phrase or the second phrase of the 1st sentence as separated by the comma?
* Regarding the term “geographical filtering” in the 2nd sentence, it is unclear whether it refers to a) target area criteria or b) the evaluation of the target area criteria.
* Lastly, in consideration of the lack of clarity/precision cited in the above points, it is unclear what the “Thus” summary in last sentence exactly refers to – the configuration information itself or the client’s evaluation of the configuration information.
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| ***Summary of change:*** | Rewording of the aforementioned requirement text to fix existing ambiguity and imprecise semantics. |
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| ***Consequences if not approved:*** | Existing ambiguity in the specification could lead to different implementations which cannot interoperate, and impede other TSG work items with dependency on TS 26.247. |
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| ***Clauses affected:*** | 10.1 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** |  | **X** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
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| ***Other comments:*** |  |
| ***56***  |  |
| ***This CR's revision history:*** |  |

START OF CHANGE

# 10 QoE for Progressive Download and DASH

## 10.1 General

A progressive download or 3GP-DASH client supporting Quality of Experience (QoE) shall report QoE metrics according to the QoE configuration. QoE reporting is optional, but if a 3GP-DASH client reports DASH metrics, it shall report all requested metrics.

The quality metrics are defined in subclause 10.2.

The quality metrics applicable for progressive download are specified in section 10.3. In this case the activation and configuration of QoE reporting framework is achieved by a corresponding OMA DM QoE Management Object as specified in Annex F, or by the QMC functionality as specified in Annex L.

The quality metrics for DASH are specified in section 10.4. In this case, QoE reporting may be triggered using the MPD ( i.e. when the **Metrics** element is present in the MPD) or using OMA DM QoE Management Object as specified in Annex F, or by the QMC functionality as specified in Annex L. When QoE reporting is triggered via any of the above methods, the 3GP-DASH client is expected to collect quality metrics according to the QoE configuration. When using the MPD or the QMC functionality, the Quality Reporting scheme as defined in section 10.5 may be used.

The QoE configuration shall only be evaluated by the client at the start of a QoE measurement and reporting session (“QoE session”) associated with a streaming session. This includes evaluation of any filtering criteria such as by geographical area. Client evaluation of all measurement and reporting criterias for an ongoing QoE session shall be unaffected by any QoE configuration changes received during that session – i.e., any changes to the QoE configuration shall only affect QoE sessions started after these configuration changes have been received.

The quality metric reporting protocol is defined in subclause 10.6. This protocol shall be used when QoE reporting is triggered via the MPD or OMA DM QoE Management Object. When QoE reporting is triggered via the QMC functionality, the reporting is specified in Annex L.

The usage of ITU-T P.1203 [49] Audio/Video Mean Opinion Score (A/V MOS) estimation is defined in Annex K.

END OF CHANGE