**3GPP TSG-WG SA4 Meeting #117E e-meeting *S4-220118***

**Elbonia, February 14th – 23rd, 2022**

Title: [DRAFT] LS Reply on SA4 requirements for QoE

Response to: LS (R2-2111665)

Release: Rel-17

Work Item: NR\_QoE-Core

Source: SA4

To: RAN2

Cc: RAN3

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**1. Overall Description:**

SA4 thanks RAN2 about the LS on SA4 requirements for QoE and provides the answers as following.

*“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.”*

*Question 1: What is the meaning and motivation for the above-mentioned requirement in clause 10.1 of TS 26.247?*

Answer: The intention is to indicate that the UE, upon evaluating the latest received QoE configuration prior to starting a new QoE session, will maintain metrics measurement and reporting according to that QoE configuration, regardless of any change either to the configuration or, if applicable, UE’s evaluation of measurement/reporting criteria set by its configuration. The reason is that QoE data is most useful if collected for a complete session. So once a decision to start QoE measurements has been made (based on evaluation of the QoE configuration), the complete session should be measured and reported. Although not explicitly stated, it is understood that the network can at any time and for whatever reason, send a directive to the UE to terminate an ongoing QoE session by releasing the existing QoE configuration, and may start a new QoE session by setting a configuration (see also answer to Q2 below).

*Question 2: Does the requirement copied above mean that the QoE client should continue QoE measurements and reporting for ongoing sessions even when the UE moves out of the QoE area scope, or does it mean the geographical filtering change does not affect ongoing session filtering i.e. the old geographical filtering instead of the new geographical filtering is applicable for ongoing sessions?*

Answer: The UE client will only evaluate any area scope filter at the start of the QoE session, based on the UE’s location at that point in time. It will not re-evaluate the area scope filter during the rest of the session, such that a QoE session, once begun, will always continue its metrics measurement and report, even if the UE moves out of the area during the session. Any change to QoE configuration information, including geographical area criteria, received by the UE during an ongoing QoE session will not impact QoE measurement and reporting for that session, as indicated in clause 10.1 of TS 26.247. SA4 understands that according to the LS in R3-212976, RAN3 has decided that the network will be responsible for tracking a UE’s location (inside or outside the target area) and can release and set/reset QoE configuration accordingly. The UE can just follow the network’s orders (configuration/release).

*Question 3: Is there a difference from QoE session continuity point of view between release caused by the UE moving out of area and release caused by some other reasons?*

Answer: No. From the SA4 perspective, UE will release the QoE session in both cases.

*Questions 4: RAN2 has noticed the LocationFilter in the Quality Reporting Scheme for DASH in chapter 10.5 in 26.247. Can this LocationFilter be used to fulfil the requirement in clause 10.1, if the requirement is confirmed?*

Answer: According to TS 26.247, Annex L.2, the network should specify only one location filtering mechanism based on the following statement:

“*Note that if geographical filtering is handled on the network side (i.e. QoE reporting is turned on/off by the network depending on the UE location), no LocationFilter should be specified in the QoE Configuration, as this would mean two consecutive filterings.”*

*Question 5: Is the application aware of the UEs current cell?*

Answer: The application can determine the UE’s current location by cell ID via the AT Command +CREG. Assuming that the network is responsible for keeping track of UE mobility as decided by RAN3, there is no need for the application to evaluate the *LocationFilter* as stated above.

*Question 6: What is the difference between the geographical area handled in RAN and the geographical area handled in the application by means of LocationFilter?*

Answer: Assuming cell list as the common location filtering criterion, both mechanisms should produce the same results.

*Question 7: Are both location filter and RAN based filtering needed?*

Answer: Assuming that by “location filter” RAN2 is referring to UE evaluation of the *LocationFilter* element in the QoE configuration, only one of these evaluation procedures should be performed as indicated by the TS 26.247 Annex L.2 statement.

*Question 8: Is LocationFilter available only for DASH or also for MTSI and other service types?*

Answer: It’s available for 3GP-DASH, VR and MTSI services.

**2. Actions:**

**To RAN2 group.**

**ACTION:** SA4 asks RAN2 group to take the above reply into account and provide feedback if any.

**3. Date of Next TSG SA WG4 Meetings:**

SA4#118-e 6 – 14 April 2022 E-Meeting

SA4#119-e 11 – 20 May 2022 E-Meeting