**3GPP TSG RAN2 Meeting #116-eDRAFT\_** **R2-2111513**

**Online, 1 – 12 November 2021**

**Title:** Further reply on QoE report handling at QoE pause

**Response to:** R2-2109385 / S4-211290

**Release:** Rel-17

**Work Item:** NR\_QoE-Core

**Source:** RAN2

**To:** SA4

**Cc:** SA3, SA5

**Contact Person:**

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**1. Overall Description:**

RAN2 thanks SA4 for their LS in S4-211290 and for the replies to RAN2 questions contained therein.

RAN2 discussed the additional questions posed by SA4 and would like to provide the following replies:

* **SA4 question 1:** “What is the expected typical duration of a temporary stop – e.g., in the order of minutes or perhaps much longer, say hours? As per-session QoE reports are typically sent relatively seldom (at the end of each session or say every few minutes for longer sessions), we would expect that a temporary stop lasting about half an hour should not require additional AS layer storage beyond the supported buffer size limitation, e.g., 64 kB as indicated for Option 2.”

**RAN2 reply to Q1:** RAN2 would like to indicate the duration of the overload situation may vary from minutes to hours depending on multiple factors such as the cause of overload, area and time where it occurs, cell size, UE density etc. RAN2 could not get consensus on the expected typical duration of a temporary stop.

* **SA4 question 2:** “In case a temporary stop can last for a very long time (e.g., hours), are there any mechanisms already defined or being considered at the RAN side to ensure that subsequent resumption of delivery of potentially a large volume of buffered QoE reports, upon recovery from RAN overload, will not trigger RAN overload recurrence?”

**RAN2 reply to Q2:** There are already several mechanisms that can be used to prevent triggering RAN overload recurrence due to QoE resume, e.g.:

* the network may move some of the UEs to non-overloaded cells/frequencies or utilize Unified Access Control
* in some cases, the network may decide to release some QoE configurations to avoid/address overload
* QoE reports will be provided over the radio bearer with a lower priority (i.e. SRB4)
* QoE resume can be performed gradually, i.e. the network may indicate resume for different UEs or QoE configurations at different time
* **SA4 question 3:** “Will pausing of QoE reporting during RAN overload effectively help the RAN, given that the average QoE load per application is <100 bits/sec?”

**RAN2 reply to Q3:** RAN2 would like to indicate there can be multiple applications running at the UE and generating QoE reports simultaneously, so the load generated by QoE may be larger than what SA4 indicated. On the other hand, RAN2 believes the generated traffic would still be low, hence pausing of the reports may not help RAN so much after all.

**2. Actions:**

**To SA4 group.**

**ACTION:** RAN2 respectfully asks SA4 to take the above information into account for their further discussions and to provide further feedback on QoE pause/resume mechanism.

**3. Dates of next TSG-RAN WG2 meetings:**

RAN2#116-bis-e 17 – 25 January 2022 Online

RAN2#117-e 21 February – 3 March 2022 Online