**3GPP TSG-RAN WG2 Meeting #126**  **R2-2405777**

**Fukuoka, Japan, 20th May – 24th May, 2024**

**Agenda item: 7.14.2**

**Source: Samsung**

**Title: Report of [AT126][604][QoE] Remaining QoE issues (Samsung)**

**Document for: Discussion & Decision**

# Introduction

During the Wed. QoE session, RAN2 discussed R2-2404604 [1].

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| [R2-2404604](file:///D%3A%5C3GPP%5CExtracts%5CR2-2404604.docx) Discussion on remaining QoE issues Samsung Shenzhen discussion Rel-18 NR\_QoE\_enh-CoreProposal 1. UE suspends sending MBS QoE reports to gNB, when QoE reporting is paused. Adopt the following proposed text.Proposal 2. UE sets each entry of measReportAppLayerContainerList in the order of time. Adopt the following proposed text.Proposal 3. UE uses measReportAppLayerContainerList-r18 only to include QoE reports for Rel-18 MBS QoE measurement. Adopt the following proposed text.DISCUSSION on P1:* Ericsson does not think the scenario can happen.
* P1 is postponed to clarify whether the described scenario can happen.

DISCUSSION on P2:* Ericsson indicates the time stamp is in the container (as opposed to RVQoE).
* Huawei agrees with Ericsson, the time stamp in container is enough. QCM agrees.
* Samsung indicates the timestamp is needed for MDT alignment.
* P2 is not agreed unless critical issues are found

DISCUSSION on P3:* Ericsson thinks it is not a problem as R17 gNB will just not read this IE. Samsung indicates that then some reports will be lost.
* Huawei thinks there should be no problem. Samsung clarifies that
* Offline Samsung to discuss P1, P2 and P3. If companies think the issues exist, they solutions can be captured during the RRC CR review.
* [AT126][604][QoE] Remaining QoE issues (Samsung)

 Scope: Discuss P1, P2, P3 from R2-2404604 Intended outcome: Report with agreeable proposals to be approved offline (report in R2-2405777) Deadline: Friday 2024-05-24 0900 |

This paper is to discuss the following offline discussion and report the outcome.

* [AT126][604][QoE] Remaining QoE issues (Samsung)

 Scope: Discuss P1, P2, P3 from R2-2404604

 Intended outcome: Report with agreeable proposals to be approved offline (report in R2-2405777)

 Deadline: Friday 2024-05-24 0900

# 2 Discussion

## 2.1 P2 and P3

P2 and P3 in R2-2404604 [1] are captured below.

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| **Proposal 2. UE sets each entry of *measReportAppLayerContainerList* in the order of time.** **Adopt the following proposed text.****Proposal 3**. **UE uses *measReportAppLayerContainerList-r18* only to include QoE reports for Rel-18 MBS QoE measurement. Adopt the following proposed text.** |

Companies think P2 is not needed since there is time information in each report container. They also understand, without P3, UE can choose whether to use *measReportAppLayerContainerList-r18* based on the indication (i.e., *idleInactiveReportAllowed*) from gNB. Therefore, we propose P2 and P3 are not agreed.

**Proposal 1. P2 and P3 in R2-2404604 are not agreed.**

## 2.2. P1

P1 in R2-2404604 [1] is captured below.

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| **Proposal 1. UE suspends sending MBS QoE reports to gNB, when QoE reporting is paused. Adopt the following proposed text.**5.7.16.2 InitiationA UE capable of application layer measurement reporting in RRC\_CONNECTED may initiate the procedure when configured with application layer measurement and reporting, i.e. whenat least one *measConfigAppLayer* and SRB4 and/or SRB5 have been configured by the network.Upon initiating the procedure, the UE shall:(…)1> for each *measConfigAppLayerId* with an application layer measurement report container which has not been transmitted since the UE received the *RRCSetup* message*:*2> if the application layer measurement reporting has not been suspended for the *measConfigAppLayerId* associated with the application layer measurement report container according to clause 5.3.5.13d:3> set the *measConfigAppLayerId* in a *MeasReportAppLayer* in the *MeasurementReportAppLayer* message(s) to the value of the *measConfigAppLayerId* received together with the application layer measurement report container;3> for each application measurement report container stored for that *measConfigAppLayerId*:4> set the *measReportAppLayerContainerList* in the *MeasurementReportAppLayer* message(s) to the stored value of the application layer measurement report container;NOTE 0: If the application layer measurement configurations and reports exceed the size of an RRC message, the UE includes the *appLayerIdleInactiveConfig* and corresponding *appLayerSessionStatus* in the first *MeasurementReportAppLayer* message when the UE enters RRC\_CONNECTED, and transmits application layer measurement report containers in subsequent *MeasurementReportAppLayer* messages.1> for each *measConfigAppLayerId* received from upper layers:2> if the UE AS has received application layer measurement report container from upper layers which has not been transmitted; and2> if the application layer measurement reporting has not been suspended for the *measConfigAppLayerId* associated with the application layer measurement report container according to clause 5.3.5.13d:3> set the *measReportAppLayerContainer* in the *MeasurementReportAppLayer* message to the received value in the application layer measurement report container;(…) |

Simply speaking, the current spec applies pause/resume feature only to Rel-17 QoE measurement reporting (i.e., *measReportAppLayerContainer)*, and this proposal is to apply pause/resume also for Rel-18 MBS QoE report (i.e., *measReportAppLayerContainerList)*.

Let’s assume the following scenario:

1) UE is configured with MBS QoE configuration.

2) UE goes to RRC\_INACTIVE or RRC\_IDLE, and performs MBS QoE measurement and logs MBS QoE reports (i.e., **QoE report 1**)

3) UE transits to RRC\_CONNECTED, and continuously performs QoE measurement in RRC\_CONNECTED as well, and generates QoE report (i.e., **QoE report 2**) in RRC\_CONNECTED

4) gNB retrieves the QoE configuration.

5) In case of RAN overload, gNB pauses QoE reporting (by configuring *pauseReporting* as true)

6) According to current spec, UE suspends sending **QoE report 2**,. However UE still sends **QoE report 1** to gNB.

P1 proposes UE should suspend sending QoE report 1 as well, considering gNB is in RAN overload and QoE report 1 may be way-too large size (ex. logged during 48 hours).

**TODO**

For P1, companies think…

**Proposal 2. P1 in R2-2404604 is (agreed / not agreed)**

# 3 Conclusion

Based on the discussion above, we propose:

**TODO**

# 4 Reference

[1] R2-2404604, Discussion on remaining QoE issues, Samsung Shenzhen