3GPP TSG RAN WG2 #112e R2-20xxxxx

Electronic meeting, 2 – 13 November, 2020

Agenda Item: 8.14 NR QoE

Source: Ericsson

Title: Handling of RAN3 LS on QoE Measurement Collection

Document for: Discussion and Decision

# Introduction

This to handle offline discussion #038 related to incoming LS R2-2008728 [1].

# Discussion

## LS comments and reply

In the LS R2-2008728 the following is stated:

“RAN3 has discussed the transport of NR QoE reports and agreed that the NR QoE reports are carried over the control plane in the RAN.”

Rapporteur’s comment: It is the rapporteur’s understanding that this means that NR QoE reports are sent over an SRB via RRC signalling. It is also the rapporteur’s understanding that it is RAN2 who decides what is sent in RRC signalling. Therefore, this needs to be discussed in RAN2 also. At least the following options are possible:

1. Send QoE reports via a separate SRB4 as in LTE.
2. Send QoE reports on another SRB.
3. Send QoE reports over user plane (not inline with RAN3 agreement).
4. Cannot be decided now. Needs to be discussed in RAN2 based on contributions.
5. …

Q1: What is your preferred option?

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| --- | --- |
| Company | Comments |
| Nokia, Nokia Shanghai Bell | 4. It cannot be decided now. It may be decided after SI conclusion.  We are fine do confirm the CP framework is feasible from RAN2 perspective and RRC signaling could be used, but for conclusions on detailed realization it is too premature. However, RAN2 did not start a study phase yet.  In our understanding QMC feature require overview, as there are discrepancies between RAN2 assumptions (expectations) and SA5/4 design (please see [RP-181640](http://3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_81/Docs/RP-181640.zip) targeting Trace/MDT framework and TS36.300, section 23.16 and further how it was designed in SA4/SA5). There are fundamental unclarities, that should be understood first, before deciding which SRB is to be used. Also in our understanding nature of QMC reports may change in NR, therefore we should first study the contents to see what is the most reasonable way to carry them. We do not favor copying LTE solutions that have misconception between RAN and SA.  We would like to also point out the findings on RAN2 and SA4/5 discrepancies to pay other groups attention to fundamental assumptions that need to be understood, before entering the phase of enhancing already the (LTE) baseline. |
| Huawei | We should definitely not contest RAN3 agreements. Hence, we think an SRB should be used for QoE reporting. Which SRB to utilize depends on the network deployment scenario (i.e. NR SA or MR-DC):   1. **SRB for NR QoE reports in NR SA**   For SA case, we prefer to specify a new SRB (e.g. SRB4). The rationale is the same as in LTE, i.e. having a new SRB ensures that QoE reports are treated with priority lower than control signaling that is using other SRBs, which in general is much more important.   1. **SRB for NR QoE reports in MR-DC cases**   RAN3 is currently discussing the QoE measurement in MR-DC and it has to be decided how to deliver QoE reports also in this case. There may be some impacts to RAN2 but it is good to wait for RAN3 progress.   1. **QoE configuration aspects**   Even though the RAN3 LS does not mention QoE configuration, we would like to share our views on it as it is also an aspect in RAN2 area.  In LTE, the QoE configuration is included in the IE otherConfig in RRCConnectionReconfiguration message, and the RRC message is always carried on SRB1. As we have otherConfig IE specified in NR as well, we could follow the LTE definition and include the QoE configuration in the otherConfig.  Currently, the RRCReconfiguration message (which includes otherConfig IE) can be carried in SRB1 or SRB3. For SA case, it is natural to use SRB1 to carry the QoE configuration (similar as in LTE). For MR-DC it is relevant to discuss whether direct QoE configuration from SN using SRB3 is allowed or not. However, since RAN3 is still discussing the QoE measurement in MR-DC, it may be good to wait for their progress before deciding about this. |
| Apple | 4) Cannot be decided now. Needs to be discussed in RAN2 based on contributions.  In general we feel RAN2 should not challenge RAN3’s agreement, i.e. we should not go with DRB. But for option 1) and 2), from reading the LS, we don’t think it is clearly indicated by RAN3. Thus RAN2 can have a discussion on those two options. |
| ZTE | We prefer to select option 4.  Currently, we do not find any reason to challenge RAN3’s agreement. For option 1 or option 2, RAN2 may need further discussion to make consensus. |
| China Unicom | We support option 4).  In our opinion, we should be consistent with what RAN3 agreed. Considering the limit time for RAN2 to discuss QoE, we should have a common understanding about the RAN2 scope (e.g. QoE signaling procedures, configuration, reporting, etc.) as soon as possible. |
| Qualcomm | For QoE reporting, other factors need to be considered first, like   1. Whether we want QoE measurements to be exposed to the RAN 2. Whether we want to adopt the pull-based mechanism or pushed based mechanism 3. Whether allow RAN to configure QoE reporting condition/trigger   These topics are under discussion in RAN3 and in our understanding, the optimal choice of reporting of the NR QoE report (whether to use SRB2 or SRB4 or other method of reporting) depends on several factors that are under discussion in RAN3. Thus, we cannot decide this without discussion in RAN2. It needs to be discussed in RAN2 based on contributions. |
| Ericsson | We think the LTE solution with SRB4 is fine and then we align with RAN3 also. However, we do not want to send QoE reports on the same SRB as important, time-critical RRC messages. |
| Samsung | We also support option 4. RAN2 can't decide it now and more discussion is needed. However, in our understanding, option 3 which is not aligned with RAN3 decision, cannot be one of candidates. |
| CATT | We support option 4.  We should not challenge RAN3 agreement. But as QC mentioned, we need further discussed base on the RAN3 output on the latest meeting. |

# Summary and proposal

TBD

# References

1. R2-2008728, LS on Transport of NR QoE Reports in the RAN (R3-205785; contact: Ericsson) RAN3 LS in Rel-17 FS\_NR\_QoE To:RAN2