**3GPP TSG-RAN WG2 Meeting #117R2-22xxxxx**

**eMeeting, 21st February – 3rd March, 2022**

**Title:** LS on RAN2 agreements on NR QoE

**Response to: -**

**Release:** Rel-17

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

**Source:** RAN2

**To:** CT1, SA4, RAN3, SA5

**Cc:**

**Contact Person:**

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**Attachments:** R2-2204218.zip

**1. Overall Description:**

RAN2 has discussed NR QoE in RAN2#116b-e and RAN2#117-e meetings, and the WI can be closed from RAN2 point of view. RAN2 agreed TS 38.331 CR is attached (R2-2204218).

~~The following RAN2 agreements may have impacts on AT-commands:~~

**~~1. On QoE configuration setup: session start/stop indication~~**

**~~2. On QoE reporting: session start/stop indication~~**

**~~3. On RAN visible QoE configuration setup: measConfigAppLayerId, RAN visible QoE configuration (including reporting periodicity and metrics) and service type~~**

**~~4. On RAN visible QoE configuration release: measConfigAppLayerId~~**

**~~5. On RAN visible QoE reporting: measConfigAppLayerId, RAN visible QoE report, PDU session ID(s)~~**

The following RAN2 agreements may have impacts on AT-commands:

**1. AS layer indicates to application layer whether session start and end indication is required for the indicated application layer measurement configuration with measConfigAppLayerId**

This indication in AT-command is set by *transmissionOfSessionStartStop* which is forwarded to upper layers. The relevant change in the 38.331 CR is listed as below:

2> for each *measConfigAppLayerId* value included in the *measConfigAppLayerToAddModList*:

*[partially omitted]*

3> forward the *transmissionOfSessionStartStop*, if received, to upper layers;

**2. Application layer sends session start or end indication with measConfigAppLayerId for the required application layer measurement configuration if there is session start or end**

This indication in AT-command is used to set *applicationLayerSessionStatus*. The relevant change in the 38.331 CR is listed as below:

2> if session start or stop information has been received from upper layers for the *measConfigAppLayerId*:

3> set the *applicationLayerSessionStatus* to the received value of the application layer measurement information;

**3. On RAN visible application layer measurement configuration setup: measConfigAppLayerId, RAN visible application layer measurement configuration (reporting periodicity and metrics)**

These parameters in AT-command are set by RRC parameters which are forwarded to upper layers. The relevant change in the 38.331 CR is listed as below:

3> if *ran-VisibleParameters* is set to setup and the parameters have been received;

4> forward the *measConfigAppLayerId,* the *ran-VisiblePeriodicity*, the *numberOfBufferLevelEntries* and the *reportInitialPlayOutDelay* to upper layers considering the *serviceType*;

It is noted that the serviceType is considered by AS layer to forward to upper layers, and whether it needs to be included as AT-command is left to CT1.

**4. On RAN visible application layer measurement configuration release: measConfigAppLayerId**

This parameter in AT-command is set by RRC parameter (i.e., *measConfigAppLayerId*)which is forwarded to upper layers. The relevant change in the 38.331 CR is listed as below:

3> else if *ran-VisibleParameters* is set to release:

4> forward the *measConfigAppLayerId* and inform upper layers about the release of the RAN visible application layer measurement configuration;

 (BTW, we (Samsung) wonder if this sentence in RRC CR implicitly includes forwarding of measConfigAppLayerId. We will make this remark in email discussion [045] as well.)

**5. On RAN visible application layer measurement reporting: measConfigAppLayerId, RAN visible application layer measurement report (buffer level, initial playout delay and PDU-SessionID).**

These parameters in AT-command are used to set *measConfigAppLayerId, applicationLayerBufferLevelList, initialPlayoutDelay, and pdu-SessionIdList*. The relevant change in the 38.331 CR is listed as below:

2> if RAN visible application layer measurement report has been received from upper layers:

3> for each *applicationLayerBufferLevel* value in the received RAN visible application layer measurement report:

4> set the *applicationLayerBufferLevel*values in the *applicationlayerBufferLevelLIst*to the buffer level values received from the upper layer in the order with the first *applicationLayerBufferLevel*value set to the newest received buffer level value, the second *applicationLayerBufferLevel*value set to the second newest received buffer level value, and so on until all the buffer level values received from the upper layer have been assigned or the configured maximum number of *applicationLayerBufferLevel*values have been set, if any;

3> set the *initialPlayoutDelay* to the received value in the RAN visible application layer measurement report, if any;

3> for each PDU session ID value indicated in the received RAN visible application layer measurement report, if any:

4> set the *PDU-SessionID* field in *the pdu-SessionIdList* to the indicated PDU session ID value;

CT1 may consider the most suitable way to implement these parameters in AT-commands.

**2. Actions:**

**To CT1:**

**ACTION:** RAN2 respectfully asks CT1 to consider RAN2 agreements in their future work, especially about the possible impacts on AT-commands listed above.

**To SA4, RAN3, SA5:**

**ACTION:** RAN2 respectfully asks SA4, RAN3, and SA5 to consider RAN2 agreements in their future work.

**3. Date of Next TSG-RAN WG2 Meetings:**

TSG-RAN WG2 Meeting #118-e 16 – 27 May 2022 Electronic

TSG-RAN WG2 Meeting #119 August 2022 Electronic