**3GPP TSG RAN WG1 #109-e R1-220xxxx**

**e-Meeting, May 9th – 20th, 2022**

**Title: [DRAFT]** Reply LS on the UE/TRP TEG framework

**Response to:** R1-2203024 (R4-2206998) LS on the UE/TRP TEG framework

**Release:** Rel-17

**Work Item:** NR\_pos\_enh-Core

**Source:** CATT

**To:** RAN4, RAN2, RAN3

**Cc:**

**Contact Person:**

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**Send any reply LS to: 3GPP Liaisons Coordinator,** **mailto:3GPPLiaison@etsi.org**

**Attachments:** None

**1. Overall Description:**

RAN1 thanks RAN4 for LS R1-2203024 (R4-2206998) on the UE/TRP Rx/RxTx TEG framework. RAN1 has discussed the LS and related issues on the reporting of the UE/TRP TEG in RAN1#109-e.

**Issue #1: UE/TRP Tx TEG framework**

RAN4 LS has provided the UE/TRP Rx/RxTx TEG framework, but not UE/TRP Tx TEG framework. In RAN1#109-e, RAN1 discussed whether RAN1 needs to define UE/TRP Tx TEG framework and reached the following conclusion.

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| **Conclusion*** RAN1 will not further discuss how to define the framework for Tx TEG unless RAN4 explicitly sends an LS with an action to RAN1.
* Include the conclusion in reply LS to RAN4.
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**Issue #2: Applicability of an Rx/RxTx TEG**

In RAN1#109-e, RAN1 has made the following agreement related to the applicability of a reported UE/TRP Rx/RxTx TEG. The agreement implies the applicability of a reported UE/TRP Rx/RxTx TEG (including its properties such as TEG ID and the associated error margins) is limited to the measurements contained within the single measurement instance, regardless how many measurements are included in the measurement instance.

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|  **Agreement*** It is RAN1’s understanding that when the TEG feature is combined with the reporting of multiple measurement instances as liaised in R1-2202922, the applicability of a reported UE/TRP Rx/RxTx TEG is limited to the measurements contained within the single measurement instance of a measurement report in which the Rx/RxTx TEG information is provided, and only to measurements that are tagged with the corresponding Rx/RxTx TEG ID.
* Include above statement in reply LS to RAN2, RAN3, RAN4
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**Issue #3: Changes/updates of the UE Tx TEG association**

In addition, RAN1 has further discussed how to handle changes/updates of the UE Tx TEG association in RAN1#109e, and reached the following conclusion.

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|  **Conclusion*** RAN1 will not further discuss how to handle change/updates of the UE Tx TEG association in higher-layer signaling unless RAN2 explicitly sends an LS with an action to RAN1.
* Include the conclusion in reply LS to RAN2.
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**Issue #4: Maximum number of measurement instances in a measurement report**

One measurement report may include multiple measurement instances and each measurement instance has its own single timestamp. In RAN1#109-e, RAN1 further made the following agreement on the maximum number of measurement instances in a report.

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| **Agreement*** Support up to 32 measurement instances in a single measurement report.
* Inform RAN2/RAN3 on RAN1’s decision
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With the consideration of one measurement report can have up to 32 measurement instances, for each measurement instance, the UE may have up to 8 Tx TEGs, one multi-RTT measurement report may have maximum 256 Tx TEG associations.

**2. Actions:**

**To RAN4, RAN2 and RAN3**

**ACTION:** *RAN1 respectfully requests RAN4, RAN2 and RAN3 to take the above information into account in their work related to UE/TRP TEG.*

**3. Date of Next TSG-RAN WG1 Meetings:**

TSG-RAN WG1 Meeting #110 22 Aug – 26 Aug 2022 Toulouse, France

TSG-RAN WG1 Meeting #110-e-Bis 10 Oct – 19 Oct 2022 E-Meeting