**3GPP TSG-RAN WG2 Meeting #125 R2-2401912**

**Athens, Greece, February 26-March 01, 2024**

**Title: LS on positioning MAC agreements**

**Response to:** -

**Release:** Release 18

**Work Item:** NR\_pos\_enh2-Core

**Source:** RAN2

**To:** RAN1, RAN4

**Cc:**

**Contact Person:**

**Name:** Yinghao Guo

**E-mail Address:** yinghaoguo@huawei.com

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

**Attachments:** -

**1. Overall Description:**

During the discussion on MAC spec for R18 positioning enhancements in RAN2#125, the following agreements have been reached:

|  |
| --- |
| Multiple/single SL-PRS transmission can be triggered by the UE’s own higher layer.  Capture in the NOTE of the MAC spec that SL-PRS delay budget is provided by higher layer of the UE.  LS to RAN1/RAN4 for questions related to the MAC.  Ask RAN1 whether a new RRC parameter is needed to configure the minimum time gap between last symbol of SL PRS and the start of the first symbol of the PSFCH reception that is associated with the PSSCH transmission on SL-PRS shared resource pool.  For resource allocation scheme 2, SL-PRS resource ID selection is determined by the UE’s implementation, applicable for initial transmission and retransmission.  R17 RSRP-based TA validation for positioning SRS transmission in RRC\_INACTIVE can be reused for positioning SRS bandwidth aggregation in RRC\_INACTIVE. Check with RAN1 and RAN4 in the LS.  RAN2 understand that different carriers in SRS bandwidth aggregation belong to the same TAG, for both RRC\_CONNECTED and RRC\_INACTIVE. No spec change is needed. Check with RAN1 and RAN4 in the LS.  SL-PRS resource request MAC CE’s priority in LCP is lower than SL-BSR MAC CE but higher than MAC CE for IAB-MT Recommended Beam Indication.  For activation/deactivation of SP positioning SRS with multiple carrier indications, design a new MAC CE for activation/deactivation of SP positioning SRS across multiple carriers.  SL MAC entity cancels the triggered SL-PRS resource request upon upper layer indication of SL MAC reset.  Include the SL-PRS bandwidth in the SL-PRS resource request MAC CE for aperiodic SL-PRS transmission and RRC UAI message for periodic SL-PRS transmission.  Bandwidth, delay budget, and priority are provided to the SL-PRS Tx UE in SLPP signalling. FFS periodicity.  RAN2 will not specify anything in this release for SL-PRS bandwidth indication from LMF to gNB.  The SL-PRS transmission multiplicity (single/multiple transmission) is determined by the UE’s own higher layer by implementation.  The reservation period for multiple SL-PRS transmission when triggered by the peer UE’s SCI is determined by the UE’s own higher layer and delivered to the MAC layer by implementation.  When SL-PRS transmission is triggered by SCI, SL-PRS priority is determined by the UE’s own higher layer and delivered to the MAC layer by implementation.  SL-PRS priority is provided to the MAC by the UE’s own higher layer, according to the priority sent in the SLPP parameter exchange in the sidelink positioning session, when SL-PRS transmission is triggered by its own higher layer. |

**2. Actions:**

**To RAN1:**

**ACTION:** RAN2 would like to ask RAN1, regarding the minimum time gap between the last symbol of SL-PRS and the start of the first symbol of PSFCH reception that is associated with the PSSCH transmission on SL-PRS shared resource pool, whether a new RRC parameter is needed.

**To RAN1 and RAN4:**

**ACTION:** RAN2 would like to ask RAN1 and RAN4 to take the two agreements regarding CA positioning into account:

* R17 RSRP-based TA validation for positioning SRS transmission in RRC\_INACTIVE can be reused for positioning SRS bandwidth aggregation in RRC\_INACTIVE.
* Different carriers in SRS bandwidth aggregation belong to the same TAG, for both RRC\_CONNECTED and RRC\_INACTIVE. No spec change is needed.

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

TSG-RAN WG2 Meeting #125bis April 2024 Changsha, CN

TSG-RAN WG2 Meeting #126 May 2024 Fukuoka, JP