3GPP TSG-RAN2 Meeting #128 R2-24xxxxx

Orlando, U.S.A, 18th – 22nd November 2024

**Title:** DRAFTLS on co-existence of SL-CA and SL PRS transmission/reception

**Release:** Rel-18

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

**Source:** vivo (to be TSG RAN2)

**To:** TSG RAN1

**Cc:**

**Contact Person:**

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**Attachments**: **-**

**1. Overall Description:**

RAN2 notices RAN1 has discussed on co-existence of SL-CA and SL PRS transmission/reception and come to the following agreements.

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| Working assumption@RAN1#116 meetingIn NR Rel-18, in a band (pre)configured with SL CA, SL PRS transmission /reception can be supported:* In a shared SL PRS resource pool in a single SL carrier.
	+ Tx power control follows the rule defined for SL CA in NR Rel-18
* In a dedicated SL PRS resource pool in a single SL carrier when the slots (pre)configured for the dedicated SL PRS resource pool do not collide with the slots (pre)configured for any other resource pool or S-SSB resource(s) in other carriers.
* FFS: new UE capability(ies) are defined for this combination of features

Note: whether this combination of features is supported in Rel-18 requires a conclusion on whether to introduce new UE capability(ies). No specification work until the FFS is resolved.Agreement@RAN1#116bis meetingFor a band configured with SL CA, confirm the related working assumption from RAN1 #116 with the introduction of the following new UE capabilities:* + One UE capability for SL PRS transmission for a band configured with SL CA
	+ One UE capability for SL PRS reception for a band configured with SL CA
	+ Note: there will not be two separate FG components for shared RP and dedicated RP
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Regarding the restriction of SL-PRS transmission/reception in a dedicated SL-PRS resource pool in a band (pre-)configured with SL CA as highlighted above, RAN2 discussed potential specification impact but has not reached a consensus. The following understandings are potential directions to capture:

* **Understanding 1**: NW restriction to guarantee that Dedicated SL-PRS resource pool is not configured in the slots colliding with slots (pre-)configured for any other resource pool(s) or S-SSB resource(s) of other SL carriers.
* **Understanding 2**: UE behaviour to select a dedicated SL-PRS resource pool which is configured in the slot that does not collide with any slot (pre-)configured for any other resource pool(s) or S-SSB resource(s) in other SL carriers.

**2. Actions:**

**To RAN1**

**ACTION:** RAN2 kindly asks RAN1 to feedback on which understanding fits the original intention of RAN1 agreement.

**3. Date of Next TSG-RAN2 Meetings:**

TSG RAN2 Meeting #129 17 - 21 February 2024 Athens, Greece

TSG RAN2 Meeting #129bis 7 - 11 April 2024 Wuhan, China