3GPP TSG RAN WG2 Meeting #119bis-e R2-22xxxxx

Online, October, 2022

**Title: LS on SL LBT failure indication and consistent SL LBT failure**

**Response to: -**

**Release: Release 18**

**Work Item: NR\_SL\_enh2**

**Source: RAN2**

**To: RAN1**

**Cc: -**

**Contact person: Xiao XIAO**

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

**Attachments:** **-**

# 1 Overall description

In RAN2 #119bis-e, RAN2 discussed consistent SL LBT failure detection and recovery procedure for SL-U and made the following agreements:

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| Agreements on SL-specific consistent LBT failure detection and recovery |

To support consistent SL LBT failure detection procedure in SL-U, RAN2 agreed to reuse the consistent LBT failure detection procedure in NR-U as the baseline. RAN2 found that for SL-U, how consistent SL LBT failure detection should be performed depends on the granularity of SL LBT failure indication, which further depends on how an SL LBT failure instance is indicated to the MAC, when an SL LBT failure is notified by PHY (e.g. what info is provided by PHY to MAC).

For example, in NR-U when LBT failure is notified due to an intended UL transmission by PHY, MAC considers the LBT failure indicated for the UL BWP where the LBT failure has happened, so that “Consistent LBT failure is detected *per UL BWP* by counting LBT failure indications, for all UL transmissions, from the lower layers to the MAC entity” as specified in TS 38.321.  By contrast, for SL-U RAN1 has already agreed to support only one SL BWP on a SL-U carrier (as in legacy R16/17 NR SL), which is essentially different from NR-U from resource configuration perspective. Thus, it is unclear to RAN2, when SL LBT failure is notified by PHY due to an intended SL transmission, whether the SL LBT failure can still be considered as an LBT failure instance indicated for the SL BWP where the SL LBT failure has happened, or alternatively it needs to be considered as an SL LBT failure instance indicated in other resource granularity (e.g. indicated for an SL resource pool, for an SL RB set, etc). This will affect RAN2’s decision on whether consistent SL LBT failure detection can/need be performed in other granularity (e.g. per resource pool, per RB set, etc.) than the per BWP manner as in NR-U.

Therefore, RAN2 respectively request RAN1 to provide the guideline on the following question related to the SL LBT failure indication.

* **Question**: When SL LBT failure is notified by PHY due to an intended SL transmission, what is the granularity in which MAC can consider that the SL LBT failure has been detected (e.g. whether MAC can consider that the SL LBT failure has been detected per SL BWP, per SL resource pool, per RB set, etc.).

# 2 Actions

**To RAN1**

**ACTION:** RAN2 respectfully request RAN1 to provide the feedback on the above Question regarding the granularity of SL LBT failure indication.

# 3 Dates of next TSG RAN WG2 meeting

TSG RAN WG2 Meeting #120 14 November – 18 November 2022 Toulouse, France

TSG RAN WG2 Meeting #121 27 February – 03 March 2023 Athens, Greece