**3GPP TSG-RAN WG2 Meeting #121bis-e R2-2304559**

**Online, April 17 – 26, 2023**

**Title: LS to SA3 on security for L2 UE-to-UE relay**

**Response to:**

**Release:** **Rel-18**

**Work Item: NR\_SL\_relay\_enh, FS\_5G\_ProSe\_Ph2**

**Source:** **RAN2**

**To: SA3**

**Cc:**

**Contact Person:**

**Name: Lianhai Wu**

**E-mail Address:**   [**wulh5@lenovo.com**](mailto:wulh5@lenovo.com)

# 1. Overall Description:

End-to-end PC5 RRC connection between source remote UE and target remote UE is supported for L2 UE-to-UE relay operation in Rel-18. In legacy NR sidelink communication, LSB 5 bits of LCID as specified in TS 38.321 is used as input for ciphering and deciphering function at PDCP layer of Sidelink UE. However, in L2 UE-to-UE relay, LCIDs may be different in the first hop between source remote UE and L2 UE-to-UE relay UE and the second hop between L2 UE-to-UE relay UE and target remote UE.

Therefore, RAN2 has a working assumption in RAN2#121bis that end-to-end bearer ID (i.e., configuration index in the list of SLRB configurations) is used as input for the L2 U2U relay ciphering and deciphering at PDCP. In addition, it was agreed in RAN2 that end-to-end bearer ID should be included in the SRAP layer in first and second PC5 hop. RAN2 would like to ask SA3 to confirm if the above working assumption is feasible.

# 2. Actions:

**To SA3:**

**ACTION:** RAN2 respectfully asks SA3 to confirm the feasibility of using the configuration index of end-to-end bearer ID as input to security and provide the feedback.

# 3. Date of Next TSG-RAN2 Meetings:

TSG-RAN2 Meeting #122 22-26 May 2023 Incheon, KR

TSG-RAN2 Meeting #123 21-25 August 2023 Toulouse, FR