**3GPP TSG-RAN WG2 Meeting #121-bis-e R2-230XXXX**

**April 17-26, 2023**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **38.351** | **CR** | 0020 | **rev** | 1 | **Current version:** | **17.4.0** |  |
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| *For* [***HELP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME | **x** | Radio Access Network | **-** | Core Network |  |

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| ***Title:*** | Corrections on SRAP for SL relay | | | | | | | | | |
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| ***Source to WG:*** | NEC, Apple, Samsung, ZTE | | | | | | | | | |
| ***Source to TSG:*** | R2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_SL\_relay-Core | | | | |  | ***Date:*** | | | 2023-04-26 |
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| ***Category:*** | ***F*** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
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| ***Reason for change:*** | | For sending SRB1 via SL-RLC1 with default configuraiton, there will not be an entry of SRB1 in SRAP configuration for Remote UE, i.e. *sl-SRAP-ConfigRemote*, or there will be an entry of SRB1 in SRAP configuration but without the corresponding sl-EgressRLC-ChannelPC5, according to 5.3.5.16 or 5.3.5.5.2 for path switching in TS38.331. But these cases are not clarified in Egress RLC channel determination procedures in 38.351. The same ambiguity exists for Relay UE according to clause 5.3.5.15.3 in 38.331. | | | | | | | | |
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| ***Summary of change:*** | | 1. In clause 5.2.2.2, clarify how Relay UE to determine the egress PC5 relay RLC channel for sending SRB1 via default SL-RLC1. 2. In clause 5.3.1.2, clarify how Remote UE to determine the egress PC5 relay RLC channel for sending SRB1 via default SL-RLC1.   **Impact analysis**  **Impacted functionality:**  Bearer mapping at SRAP entity.  **Inter-operability:**  There is no inter-operatbility issues since this change is just for Remote UE or Relay UE’s internal operation. | | | | | | | | |
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| ***Consequences if not approved:*** | | 1. Remote UE or Relay UE may not find the proper egress PC5 relay RLC channel for SRB1 when default SL-RLC1 is used. | | | | | | | | |
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| ***Clauses affected:*** | | 5.2.2.2, 5.3.1.2 | | | | | | | | |
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|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **x** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **x** | O&M Specifications | | | | TS/TR ... CR ... | | |
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| ***Other comments:*** | |  | | | | | | | | |
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| ***This CR's revision history:*** | | Rev 1: Revised based on agreements in the offline discussion [AT121bis-e][426][Relay] Rel-17 relay UP CR. | | | | | | | | |

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| *Start of 1st change* |

#### 5.2.2.2 Egress RLC channel determination

For a SRAP Data PDU to be transmitted, the SRAP entity shall:

- if the SRAP Data PDU is for SRB0 (the BEARER ID field is 0 and the bearer is identified as SRB based on *sl-RemoteUE-RB-Identity* associated with the entry containing the *sl-EgressRLC-ChannelUu* which matches the LCID of the Uu Relay RLC Channel from which the SRAP Data PDU is received):

- Determine the egress PC5 Relay RLC channel in the determined egress link corresponding to *logicalChannelIdentity* for SL-RLC0 as specified in TS 38.331 [3].

~~- else if the SRAP Data PDU is for SRB1 (the BEARER ID field is 1) and if there is not an entry in~~ *~~sl-SRAP-ConfigRelay~~*~~, whose~~ *~~sl-RemoteUE-RB-Identity~~* ~~matches the SRB identity of the SRAP Data PDU, or if there is an entry in~~ *~~sl-SRAP-ConfigRelay~~* ~~without the corresponding~~ *~~sl-EgressRLC-ChannelPC5~~*~~:~~

~~- Determine the egress PC5 Relay RLC channel in the determined egress link corresponding to~~ *~~logicalChannelIdentity~~* ~~for SL-RLC1 as specified in TS 38.331 [3];~~

- else if there is an entry in *sl-SRAP-ConfigRelay*, whose *sl-LocalIdentity* matches the UE ID field in SRAP Data PDU, which includes an *sl-RemoteUE-RB-Identity* that matches the SRB identityor DRB identityof the SRAP Data PDU determined by the BEARER ID field (For the BEARER ID shared by both SRB and DRB, SRB and DRB are differentiated based on *sl-RemoteUE-RB-Identity* associated with the entry containing the *sl-EgressRLC-ChannelUu* which matches the LCID of the Uu Relay RLC Channel from which the SRAP Data PDU is received):

- if the SRAP Data PDU is for SRB1 but the corresponding *sl-EgressRLC-ChannelPC5* is absent in *sl-SRAP-ConfigRelay*:

- Determine the egress PC5 Relay RLC channel in the determined egress link corresponding to *logicalChannelIdentity* for SL-RLC1 as specified in TS 38.331 [3].

- else:

- Determine the egress PC5 Relay RLC channel in the determined egress link corresponding to *sl-EgressRLC-ChannelPC5* configured for the concerned *sl-LocalIdentity* and concerned *sl-RemoteUE-RB-Identity* as specified in TS 38.331 [3].

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| *End of 1st change* |

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| *Start of 2nd change* |

#### 5.3.1.2 Egress RLC channel determination

For a SRAP Data PDU to be transmitted, the SRAP entity shall:

- if the SRAP Data PDU is for SRB0:

- Determine the egress PC5 Relay RLC channel in the link with U2N Relay UE corresponding to *logicalChannelIdentity* for SL-RLC0 as specified in TS 38.331 [3].

- else if the SRAP Data PDU is for SRB1 and if there is not an entry in *sl-SRAP-ConfigRemote*, whose *sl-RemoteUE-RB-Identity* matches the SRB identity of the SRAP Data PDU, or if there is an entry in *sl-SRAP-ConfigRemote* without the corresponding *sl-EgressRLC-ChannelPC5*:

- Determine the egress PC5 Relay RLC channel in the link with U2N Relay UE corresponding to *logicalChannelIdentity* for SL-RLC1 as specified in TS 38.331 [3].

- else if there is an entry in *sl-SRAP-ConfigRemote*, whose *sl-RemoteUE-RB-Identity* matches the SRB identity or DRB identityof the SRAP Data PDU:

- Determine the egress PC5 Relay RLC channel of the link with U2N Relay UE corresponding to *sl-EgressRLC-ChannelPC5* configured for the concerned *sl-RemoteUE-RB-Identity* as specified in TS 38.331 [3].

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| *End of 2nd change* |