**3GPP TSG-RAN2 #113bis-e R2-210xxxx**

**Electronic meeting, April 12 – April 20, 2021**

**Agenda item:**5.3.2

**Source:** LG Electronics (Rapporteur)

**Title:** Report of [AT113bis-e][004][NR15] PDCP SDAP

**Document for:** Discussion and Decision

# 1. Introduction

This document is to report the result of the following email discussion in RAN2#113bis-e Meeting.

* [AT113bis-e][004][NR15] PDCP SDAP (LGE)

 Scope: Treat R2-2103301, R2-2103302, R2-2103303, R2-2104201, R2-2104202, R2-2104293

 Phase 1, determine agreeable parts, Phase 2, for agreeable parts Work on CRs.

 Intended outcome: Report and Agreed-in-principle CRs.

 Deadline: Schedule A

# 2 Contact Information

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| Company | Contact: Name (E-mail) |
| LG Electronics | SeungJune Yi (seungjune.yi@lge.com) |
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# 3. Discussion

## 3.1 PDCP re-establishment after RRC re-establishment

[R2-2103301](file:///D%3A%5C3GPP%5CRAN2%5CTSGR2_113bis-e%5Cdocs%5CR2-2103301.zip) Discussion on the issue of PDCP re-establishment after RRC re-establishment NEC discussion Rel-15 NR\_newRAT-Core

[R2-2103302](file:///D%3A%5C3GPP%5CRAN2%5CTSGR2_113bis-e%5Cdocs%5CR2-2103302.zip) Correction on PDCP re-establishment after RRC re-establishment NEC CR Rel-15 38.323 15.7.0 0066 - F NR\_newRAT-Core

[R2-2103303](file:///D%3A%5C3GPP%5CRAN2%5CTSGR2_113bis-e%5Cdocs%5CR2-2103303.zip) Correction on PDCP re-establishment after RRC re-establishment NEC CR Rel-16 38.323 16.3.0 0067 - A NR\_newRAT-Core

**Reason for change**

According to the current spec, the DRBs are suspended when the NW configure the UE to re-establish PDCP after RRC re-establishment, thus the unconfirmed PDCP SDUs of AM DRBs before re-establishment will be treated as new packets from upper layer for transmission.

However, to support lossless transmission and in-order delivery at RAN side, the COUNT of the unconfirmed PDCP SDUs before PDCP re-establishment should be reused for retransmission or transmission in the new cell after successful RRC re-establishment (corresponding to the behavior of AM DRBs which are not suppsended).

**Q1: Do you agree to the CR?**

|  |  |  |
| --- | --- | --- |
| Company | Agree/Disagree/Agree with modification | Detailed Comments |
| LG | Disagree | DRB suspend and PDCP suspend are different events. The text “for suspended AM DRBs” in PDCP specification is referring to the case when “PDCP suspend” was performed before. Thus, the unconfirmed PDCP SDUs of AM DRBs are treated as new packets only when the PDCP suspend was performed before.Note that, in RRC specification, “PDCP suspend” is performed only when the UE receives RRCRelease message. |
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## 3.2 Integrity check for interspersed ROHC feedback

[R2-2104201](file:///D%3A%5C3GPP%5CRAN2%5CTSGR2_113bis-e%5Cdocs%5CR2-2104201.zip) Integrity check for interspersed ROHC feedback LG Electronics Inc. (PDCP rapporteur) CR Rel-15 38.323 15.7.0 0068 - F NR\_newRAT-Core Late

[R2-2104202](file:///D%3A%5C3GPP%5CRAN2%5CTSGR2_113bis-e%5Cdocs%5CR2-2104202.zip) Integrity check for interspersed ROHC feedback LG Electronics Inc. (PDCP rapporteur) CR Rel-16 38.323 16.3.0 0069 - A NR\_newRAT-Core Late

**Reason for change**

The interspersed ROHC feedback is transmitted via PDCP Control PDU, and the PDCP Control PDU is neither ciphered nor integrity protected. However, in the current PDCP specification, it is specified that ciphering is not applied but not specified that integrity protection is not applied. It could be misled that integrity protection is applied to PDCP Control PDU including interspersed ROHC feedback.

**Q2: Do you agree to the CR?**

|  |  |  |
| --- | --- | --- |
| Company | Agree/Disagree/Agree with modification | Detailed Comments |
| LG | Agree | This is rapporteur CR. Note that similar change is proposed for EHC in Rel-16. |
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## 3.3 Change of PDU session ID

[R2-2104293](file:///D%3A%5C3GPP%5CRAN2%5CTSGR2_113bis-e%5Cdocs%5CR2-2104293.zip) Clarification on the change of PDU session ID Samsung CR Rel-15 38.313 15.13.0 2568 - F NR\_newRAT-Core Late

**Reason for change**

From the current specification, it is unclear whether PDU session ID (i.e. pdu-Session under SDAP-Config in DRB-ToAddMod) can be changed using DRB modification procedure.

Even though the latest specification does not restrict such configuration, such scenario was never discussed in RAN2, and thus it should not be allowed to avoid any malfunction.

Note that TS 37.324 (only) defines QoS flow remapping scenario based on the RRC reconfiguration, but from our understanding, the scenario assumes that it can occur within the same PDU session.

**Q3: Do you agree to the CR?**

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| --- | --- | --- |
| Company | Agree/Disagree/Agree with modification | Detailed Comments |
| LG | Agree | We have the same understanding that PDU session ID can be changed only by release/addition of the DRB. |
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# 4. Conclusions

To be filled later..