3GPP TSG-RAN WG2 #129bis R2-250xxxx

**Wuhan, China, April 7 – April 11, 2025**

**Agenda item:**8.7.1 (NR\_XR\_Ph3-Core)

**Source:** LG Electronics

**Title:** Discussion of [POST129][511][XR] PDCP running CR (LGE)

**Document for:** Report

# 1. Introduction

This document summarizes the discussion of the following offline discussion.

* [POST129][511][XR] PDCP running CR (LGE)

Scope: Update and review the CR

Intended outcome: Running CR for endorsement in the next meeting

Deadline: Long

# 2. Contact information

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# 3. Comments to the PDCP running CR v01

Companies are invited to list their comments on v01, using comment identifier (company ID and number), e.g. LGE001. The rapporteur will provide update based on the comments in proper time.

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| Comment identifier | Section | Comments and/or change suggestions | Rapporteur resolution |
| FW01 | 3.1 | About the last sentence in the définition of Delay-reporting PDCP SDU, we are not sure whether we need this sentence in the definition section. However, we definitely need to capture this in the RRC spec (in the description of this parameter in the *MAC-CellGroupConfig*). |  |
| HW001 | 3.1 | We think that there is no need to separately define this since it is only used in definition and can merge into delay reporting PDCP SDU definition. The wording can be merged into the definition of “Delay-reporting PDCP SDU” as follow  **Delay-reporting PDCP SDU**: if *pdu-SetDiscard* is not configured, a delay-reporting PDCP SDU associated with the i:th *dsr-ReportingThreshold* is a PDCP SDU for which the remaining time till *discardTimer* expiry is less than the i:th *dsr-ReportingThreshold* and larger than or equal to the i-1:th *dsr-ReportingThreshold* (if i>1) or larger than zero (if i=1). If *pdu-SetDiscard* is configured, a delay-reporting DCP SDU associated with the i:th *dsr-ReportingThreshold* is a PDCP SDU belonging to a PDU Set of which at least one PDU SDU has the remaining time till *discardTimer* expiry ~~the PDU Set remaining time is~~ less than the i:th *dsr-ReportingThreshold* and larger than or equal to the i-1:th *dsr-ReportingThreshold* (if i>1) or larger than zero (if i=1) and is the shortest remaining time till *discardTimer* expiry among the PDCP SDUs belonging to the PDU Set. The *dsr-ReportingThreshold*s configured for the PDCP entity are ordered in ascending order.  With the above, the following definition can be removed:  **~~PDU Set remaining time~~**~~: the shortest remaining time till~~ *~~discardTimer~~* ~~expiry among the PDCP SDUs belonging to the PDU Set.~~ |  |
| HW002 | 3.1 | On the following:  **Non-delay-reporting PDCP SDU**: a non-delay-reporting PDCP SDU associated with the i:th *dsr-ReportingThreshold* is a PDCP SDU that is associated with a COUNT value smaller than the largest COUNT value of the delay-reporting PDCP SDU associated with the i:th *dsr-ReportingThreshold*.  RAN2 agreement is that it is for “non-delay critical data ahead of delay critical data”, which means that the “non-delay-reporting PDCP SDU” should only be reported for reporting thresholds overlapped with the DSR triggering threshold.  The UE may also support including non-delay critical data ahead of delay critical data in the buffer size calculation for DSR, which is a capability indicated to the NW.  The definition above is for all the reporting thresholds. Suggest to update as follow:  **Non-delay-reporting PDCP SDU**: a non-delay-reporting PDCP SDU associated with the i:th *dsr-ReportingThreshold* is a PDCP SDU that is associated with a COUNT value smaller than the largest COUNT value of the delay-reporting PDCP SDU associated with the i:th *dsr-ReportingThreshold*, where the i:th *dsr-ReportingThreshold* overlaps with the *remainingTimeThreshold*. |  |
| HW003 | 5.15 | Similar issue as HW002 in the following statement:  If *dsr-ReportNonDelayCriticalData* is configured, the transmitting PDCP entity shall further consider the following as delay-reporting PDCP data volume associated with the i:th *dsr-ReportingThreshold*, where the i:th *dsr-ReportingThreshold* overlaps with the *remainingTimeThreshold*: |  |
| HW004 | 5.15 | The following should include the highlighted red part, since the indication is referring to the i:th *dsr-ReportingThreshold*  The transmitting PDCP entity provides a delay-reporting indication associated with the i:th *dsr-ReportingThreshold* for the PDCP Data PDU to lower layers when:  [OPPO] We share a similar view as HW, as R19 DSR introduces multiple portions thus the lower layer should know which portion this PDCP PDU is associated with. |  |
| APP01 | 5.15 | For the following:  A delay-reporting PDCP SDU changes its associated *dsr-ReportingThreshold* as its remaining time decreases. The transmitting PDCP entity provides a delay-reporting indication for the PDCP Data PDU to lower layers each time the delay-reporting PDCP SDU changes its associated *dsr-ReportingThreshold*.  We tend to think whether/when PDCP update the delay-reporting indication to lower layer is an UE implementation issue. Some discussions in RAN2 may be needed to confirm if this has to be captured in the specification. |  |
| Sharp01 | 3.1 | The configuration of dsr-ReportingThresholds is done in RRC field description. It would be better to capture the following sentence in TS 38.331:  The *dsr-ReportingThreshold*s configured for the PDCP entity are ordered in ascending order |  |
| Sharp02 | 5.15 | We don’t think the following paragraph is needed. This is an internal UE behaviour which can be implemented in different ways. For example, the MAC entity decides the contents of the DSR MAC CE when it is triggered and about to send.  A delay-reporting PDCP SDU changes its associated *dsr-ReportingThreshold* as its remaining time decreases. The transmitting PDCP entity provides a delay-reporting indication for the PDCP Data PDU to lower layers each time the delay-reporting PDCP SDU changes its associated *dsr-ReportingThreshold*. |  |
| OPPO001 | 5.15 | When time elapses, the portion that a PDCP SDU is associated with will be changed. If the delay-reporting indication has not yet been delivered, the PDCP layer only needs to provide the information based on the latest status. If the delay-reporting indication has already been provided to the lower layer, the PDCP layer can deliver a new indication for updating. However, we doubt the necessity of delay-reporting indication for a PDCP PDU each time its associated portion changes. This restricts the UE behaviour. We suggest leaving it to the UE implementation when/whether to update the delay-reporting indication to the lower layer.  A delay-reporting PDCP SDU changes its associated *dsr-ReportingThreshold* as its remaining time decreases. The transmitting PDCP entity provides a delay-reporting indication for the PDCP Data PDU to lower layers each time the delay-reporting PDCP SDU changes its associated *dsr-ReportingThreshold*. |  |

# 4. Comments to the PDCP running CR v02

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# 5. Comments to the PDCP running CR v03

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