3GPP TSG-RAN WG2 #130 R2-250xxxx

**Malta, 19-23 May 2025**

**Agenda Item: 8.7.1**

**Source: Qualcomm Incorporated**

**Title: Summary of discussions on reply LS to SA4**

**Document for: Discussion**

# 1. Introduction

This document is to collect companies’ views on how to reply to SA4, in response to their LSes in R2-250339 (S4-250736) “Accuracy of PDU Set size and data burst size indication” and R2-2503340 (S4-250737) “Indicating Time to the Next Data Burst (TTNB)”.

The discussion will be conducted in two phases:

* In the first phase, companies are invited to discuss what should be included in the reply LSes. Please provide your input no later than **May 5 1800 UTC**.
* In the second phase, companies are invited to review draft for the reply LS, prepared based on the outcome of the discussion in the first phase. Please provide your inputs no later than **May 8 1800 UTC**.

# 2. Contact information

Please provide your contact information in the following table:

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| --- | --- | --- |
| **Company** | **Name** | **Email** |
| Qualcomm | Linhai He | linhaihe@qti.qualcomm.com |
| Futurewei | Yunsong Yang | yyang1@futurewei.com |
| Nokia | Benoist Sébire | benoist.sebire@nokia.com |
| CATT | Hao Xu | xuhao@catt.cn |
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# 3. Discussion

## 3.1 Accuracy of PDU Set size and data burst size indication

In LS in S4-250736, SA4 has asked RAN2 to provide the following:

* Accuracy limit requirements on the indicated PDU Set size in the RTP header extension. Please note that SA4 have documented potential solutions in TR 26.822, which offer varying levels of accuracy with errors ranging from ±0.1% to ±5%;
* The same on the indicated data burst size, as the causes to the inaccuracy in the indicated PDU Set size are also applicable to the indicated data burst size.

It is the rapporteur’s understanding that from RAN2’s perspective, the more accurate the indicated PDU Set size and the indicated data burst size are, the more efficiently RAN is able to configure and schedule its radio resources for the application. The rapporteur would first like to confirm whether this is the common understanding among companies.

**Q1. Do you agree that from RAN2’s perspective, the more accurate the indicated PDU Set size and the indicated data burst size are, the more efficiently RAN is able to configure and schedule its radio resources for the application?**

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| --- | --- | --- |
| **Company** | **Yes/No** | **Comments** |
| Qualcomm | Yes |  |
| Futurewei | Probably not | Assuming this feature is for DL, a gNB most likely will use DG for DL XR data and hence should be able to dynamically handle whatever amount of data received for transmission over the air, as they are received. We do not see such size indication being very beneficial for DL scheduling. |
| Nokia | Yes but | Up to a practical limit. |
| CATT | See comments | From algorithm point of view, the more accurate information the gNB gets, the more helpful in some cases. But from reality point of view, as raised by Futurewei, there has some cases that the requirment is not so critical. This issue depends on the scenario which using these two parameters. Without consensus based on the use cases, we fail to answer this quesiton directly. |
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Next, companies are invited to provide their preferred accuracy limit for the indicated PDU Set size. In addition, please provide your justification in the Comments field, if possible.

To facilitate the discussion, the rapporteur suggests that we use the solutions already documented in TR 26.822 as the starting point. Of course, you are still welcome to provide any accuracy limit you prefer, whatever it may be.

**Q2. What is your preferred accuracy limit for the indicated PDU Set size? Please provide your justification too, if possible.**

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| --- | --- | --- |
| **Company** | **Accuracy limit** | **Comments** |
| Qualcomm | 0.1% of max PDU Set size | In our understanding, whatever accuracy limit SA4 chooses, no impact on RAN2 specs is foreseen. So the more accurate it is, the better. |
| Nokia | 1%~10% | Agree with Qualcomm that this has no impact on RAN2 specs. However, the PDU set size is intended to provide a rough estimate of how large the PDU set will be for the purposes of future resource allocation planning. It's not used to issue actual grants, so precision isn't very critical. Also, we do not see a strong justification why the accuracy should be above that of BSR. |
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For the indicated data burst size, it is the rapporteur’s understanding that the accuracy limit of PDU Set size and data burst size are very similar in nature. Therefore, in the interest of facilitating the discussion, the rapporteur suggests that we discuss whether the same accuracy limit may be used for the indicated PDU Set size and data burst. If in your view they should be different, you are welcome to provide it in your comment.

**Q3. Do you agree that the accuracy limit for the indicated PDU Set size and the indicated data burst size should be the same?**

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| **Company** | **Yes/No** | **Comments** |
| Qualcomm | Yes | Accuracy of PDU Set size and data burst size have the same impact on gNB scheduling. |
| Nokia | Yes |  |
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## 3.2 Accuracy of the indicated Time to the Next Data Burst (TTNB)

In LS in S4-250737, SA4 has asked RAN2 to provide quantitative requirements on the accuracy of the indicated TTNB value than those provided in LS R2-2407733, as this information is essential for SA4 to define TTNB appropriately.

It is the rapporteur’s understanding that from RAN2’s perspective, the more accurate the indicated TTNB is, the more UE power can be saved. The rapporteur would first like to confirm whether this is the common understanding among companies.

**Q4. Do you agree that from RAN2’s perspective, the more accurate the indicated TTNB is, the more UE power can be saved?**

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| --- | --- | --- |
| **Company** | **Yes/No** | **Comments** |
| Qualcomm | Yes |  |
| Nokia | Yes, but | Up to a practical limit. |
| CATT | Yes | Differnent to Q1, the use case for this TTNB is clearer to RAN2, hence, we support the current proposal. |
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Next, companies are invited to provide their preferred accuracy limit for the indicated TTNB (e.g. in msec). In addition, please provide your justification in the Comments field, if possible.

**Q5. What is your preferred accuracy limit for the indicated TTNB? Please provide your justification too, if possible.**

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| --- | --- | --- |
| **Company** | **Accuracy limit** | **Comments** |
| Qualcomm | Same as the shortest PDCCH skipping duration | If the next data burst is to arrive before the start of the next on duration, the network may reconfigure the DRX start offset to avoid extra latency. The granularity of DRX start offset is 1msec.  If the next data burst is to arrive after the start of the next on duration, the network may either reconfigure the DRX start offset or schedule a PDCCH skipping. In the latter case, the minimum duration is 1 slot (whose absolute length is SCS dependent).  Between the granularity of DRX start offset and the minimum PDCCH skipping duration, the latter is shorter and hence can be selected as the accuracy limit for the indicated TTNB. |
| Nokia | 1 slot | Agree with Qualcomm. |
| CATT | 1 slot | We share the same view as QC. |
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# 4. Summary

(To be filled in later)