3GPP TSG-RAN WG2 Meeting #118 Electronic R2-22XXXXX

Elbonia, 09 – 20 May 2022

**Agenda item: 6.13.4 MDT Corrections**

**Source: Huawei (Rapporteur)**

**Title: Report of [AT118-e][805][SON/MDT] Corrections on TS.38.314 (Huawei)**

**WID/SID: NR\_ENDC\_SON\_MDT\_enh-Core**

**Document for: Discussion and Decision**

# 1 Introduction

This document is the report of the following email discussion:

* **[AT118e][805][SON/MDT] Corrections on TS.38.314 (Huawei)**

Discussion on R2-2205076, R2-2205689 and R2-2204664 and figure out the agreeable changes and provide the CR accordingly

Intended outcome: Agreed 38.314 CR

Deadline: 12:34 UTC, Friday May 20th

It is suggested to have 2 phases:

* Phase 1: collect comments on the relevant contributions. **Deadline: W2 Thursday May 19th 1200 UTC**
* Phase 2: finalize and agree on the CR to TS 38.314 (merge all agreeable changes into a single CR). **Deadline: W2 Friday 20th 12:34 UTC**

# 2 Contact Points

Respondents to the email discussion are kindly asked to fill in the following table.

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| --- | --- | --- |
| Company | Name | Email Address |
| ZTE | QIU ZHIHONG | qiu.zhihong@zte.com.cn |
| Qualcomm | Rajeev Kumar | rkum@qti.qualcomm.com |
| CATT | Shijie | shijie@catt.cn |
| Huawei, HiSilicon | Jun Chen | jun.chen@huawei.com |
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# 3 Discussion

**This email discussion is to progress on the following contributions:**

R2-2205076 Corrections on TS.38.314 for the delay measurement for split bearer Huawei, HiSilicon CR Rel-17 38.314 17.0.0 0023 - F NR\_ENDC\_SON\_MDT\_enh-Core

=> Try to discuss offline #805 (Huawei)

R2-2205689 TP on L2 measurements for total RAN delay calculation Ericsson discussion NR\_ENDC\_SON\_MDT\_enh-Core

=> Try to discuss offline #805 (Huawei)

R2-2204664 CR to 38314 on RA preamble measurement ZTE Corporation, Sanechips, CMCC CR Rel-17 38.314 17.0.0 0022 - F NR\_ENDC\_SON\_MDT\_enh-Core

=> Try to discuss offline #805 (Huawei)

## 3.1 Discussion on R2-2205076 (the delay measurement for split bearer)

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| ***Reason for change:*** | At RAN2#113-e meeting, the following agreement was made. But it is missing in latest specifications.  Agreement:  For QoS monitoring related delay reporting to CN, ‘weighted average (consider the number of packets) over MN and SN’ is used to calculate the total delay measurement M6 over MCG/SCG for split bearers WITHOUT PDCP duplication. |
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| ***Summary of change:*** | Add a text in TS 38.314 according to the following agreement:  For QoS monitoring related delay reporting to CN, ‘weighted average (consider the number of packets) over MN and SN’ is used to calculate the total delay measurement M6 over MCG/SCG for split bearers WITHOUT PDCP duplication. |
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| ***Consequences if not approved:*** | One RAN2 agreement is missing in the specification. |

**Question 1: Do companies agree with R2-2205076? Any comments?**

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| Company | Yes/No | Comments |
| ZTE | Yes | We also needs to include the following agreements made for the case PDCP duplication is on:  7 For QoS monitoring related delay reporting to CN, the minimum value between two legs is defined as the total delay measurement M6 over MCG/SCG for split bearers WITH PDCP duplication. |
| Qualcomm | Yes | Agree with ZTE |
| CATT | Yes |  |
| Huawei, HiSilicon | Yes | Proponent.  We checked the text mentioned by ZTE, and it was agreed at RAN2#113-e meeting. We are ok to capture it in TS 38.314. |
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## 3.2 Discussion on R2-2205689 (L2 measurements for total RAN delay calculation)

In RAN3#115e meeting, for M6 measurements, discussions regarding forwarding additional information, namely Number of packets sent through MN and SN and number of duplicated packets towards TCE, for the case when PDCP duplication is switched within a delay measurement period for a split DRB in DC scenario was discussed. The below text captures the agreement taken by RAN3:

RAN3 to agree to support Solution 2a

Where solution 2a in this discussion was:

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| * Solution 2: Sending individual delay components to TCE   + 2a: sending further detailed measurements to TCE for M6 calculation     - Number of PDCP PDUs sent via MN or SN within a measurement period, when PDCP duplication is enabled.     - Number of PDCP PDUs sent over MN within a measurement period, when the PDCP duplication is not enabled.     - Number of PDCP PDUs sent over SN within a measurement period, when the PDCP duplication is not enabled. |

In R2-220331, Ericsson proposed the same in RAN2 and provided with detailed explanations and formulae supporting the proposal.

In this contribution R2-2205689, some proposals are made, and a TP is attached in the last section of the paper.

[Proposal 1 Calculation of number of packets sent through MN and SN per UE per DRB, and number of duplicated packets are introduced as new L2 measurements in 38.314.](#_Toc101790164)

[Proposal 2 RAN2 is kindly requested to accept the annexed TP capturing the agreed measurement counters per UE for split DRBs required for total RAN delay calculation at the TCE/OAM.](#_Toc101790165)

[Proposal 3 Duplication information for M6 measurements in case of split bearer, i.e., number of packets sent through MN and SN, and number of duplicated packets are measured for M5 and M7 measurements. Thus, the newly introduced measurement counters in 38.314 are also applicable for M5 and M7.](#_Toc101790166)

**Question 2: Do companies agree with P1, P2, and P3 in R2-2205689? Any comments?**

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| Company | Yes/No | Comments |
| ZTE | Partially | Fine with P1/P2 which is agreed by RAN3. Not P3 since we have not agreed to enhance M5/7, and if NW wants to use it it can be done by implementation. |
| Qualcomm | Partially | Same view as ZTE (Fine with P1/P2, not fine with P3). QoS monitoring for M5 and M7 was not agreed in rel-17. |
| CATT | Partially | Same view as ZTE. We have agreed in RAN2 that indication of duplication status is beneficial to be included for M5/M7 measurement in split bearer, and no RAN3 agreement on this. |
| Huawei, HiSilicon | Yes to P1, P2 | We have similar views as ZTE. |
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**Question 3: If Yes to Q2, do companies have comments regarding the attached TP in R2-2205689?**

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| Company | Comments |
| Huawei, HiSilicon | We note that the attached TP is mentioning “for OAM performance observability.” for new KPIs. We understand that these KPIs are from the incoming RAN3 LS (as below), and the LS is about MDT, so the purpose of the new KPIs should be “QoS verfication of MDT”.  [R2-2204498](file:///C:\Users\mtk65284\Documents\3GPP\tsg_ran\WG2_RL2\TSGR2_118-e\Docs\R2-2204498.zip) Reply LS on MDT M6 calculation for split bearers in MR-DC (R3-222868; contact: Ericsson) RAN3 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core To:RAN2, SA5 |
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## 3.3 Discussion on R2-2204664 (RA preamble measurement)

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| ***Reason for change:*** | In RAN2#116-e meeting, following agreements are achieved:  ***Agreements:***  *1 Support counting the number of received random access preamble per cell/per SSB separately for 2step RA and 4step RA type.*  But currently the agreed measurements are not captured in specs. |
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| ***Summary of change:*** | Add the number of received random access preamble per cell/per SSB separately for 2step RA and 4step RA type in subclause 4.2.1 |
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| ***Consequences if not approved:*** | Specs is not aligned with agreements, and RA preamble measurement per RA type cannot be supported. |

**Question 4: Do companies agree with R2-2204664? Any comments?**

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| Company | Yes/No | Comments |
| ZTE | Yes | Proponent. This has been agreed. An update, the agreement was taken in RAN2#113 not in RAN2#116 |
| Qualcomm | Yes |  |
| CATT | Yes |  |
| Huawei, HiSilicon | Yes |  |
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# 4 Conclusion

TBD.