3GPP TSG-RAN WG2 #109bis-e Tdoc R2-20xxxxx

Elbonia, 20th – 30th April 2020

Agenda Item: 5.4.2 LTE changes related to NR

Source: Ericsson

Title: Summary of [AT109bis-e][059][NR15] LTE changes related to NR

Document for: Discussion, Decision

# 1 Introduction

This document contains a list of TDocs to be discussed in the offline discussion below. Companies are invited to give their views on each TDoc submitted.

* [AT109bis-e][059][NR15] LTE changes related to NR (Ericsson, CATT, Google, Nokia)

Scope: Treat all docs under AI 5.4.2

Part 1: Determine which issues that need resolution, find agreeable proposals. Deadline: April 23 0700 UTC

Part 2: For the parts that are agreeable, discussion will continue to agree on CRs.

# 2 List of TDocs

Companies are invited to give their views on each TDoc submitted below. TDoc containing Rel-16 shadow CR is listed together with the Rel-15 CR.

## R2-2002645 (+ R2-2002597) – Calculation of shortResumeMAC-I

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| **Company** | **Views** |
| CATT | The problem exists, but it is not backwards compatible. But we think the mistaken spec is TS 33.501…  It was an agreement in RAN2#103 over R2-1811656: “Align the ResumeMAC inputs for LTE/5GC with NR”.  The CR which changes TS 33.501 to the current status is S3-190425—it seems to be a part of many CRs which aims to add E-UTRA/5GC descriptions into TS 33.501, and added many texts. No related discussion is found. It is the 33.501 that doesn’t algin with the agreement made in RAN2. |
| Lenovo | We agree that there is a misalignment between RAN2 and SA3 specs, but we are not sure whether the issue comes from RAN2 or SA3. This should be clarified at first. |
| Ericsson | Agree |
| Huawei | Similar view with CATT. SA3 is discussing deleting this parameter (S3-200183). As far as we know, several companies in SA3 support deleting this parameter. No action in RAN2 is needed.  Besides, this is an NBC change, and should not be introduced at this stage. |
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## R2-2002788 – Release of EN-DC

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| **Company** | **Views** |
| Nokia | Did we misunderstand something? The release and add would automatically do the parts that the CR wants to include. Could you please clarify? |
| CATT | The *p-MaxEUTRA, p-MaxUE-FR1*, *tdm-PatternConfig* are aplied for (NG)-ENDC only, so upon the MR-DC release, these parameters should be released too. As in RRC reestablishment and RRC resume procedure, the UE automatically release the MR-DC and release the *p-MaxEUTRA, p-MaxUE-FR1*, *tdm-PatternConfig* too, it is reasonable to relase the *p-MaxEUTRA, p-MaxUE-FR1*, *tdm-PatternConfig* automatically for UE upon the NW indicate the UE release the MR-DC explicity because there is no explicit siganling which can release the *p-MaxEUTRA, p-MaxUE-FR1*, *tdm-PatternConfig* in current spec, if the UE keep the *p-MaxEUTRA, p-MaxUE-FR1*, *tdm-PatternConfig* upon the MR-DC released by NW, the power will be limited for UE when the UE configured with SA, however if the NW wants to keep the *p-MaxEUTRA, p-MaxUE-FR1*, *tdm-PatternConfig* upon the MR-DC reconfigruation with full configuration for SCG configuration, the NW can include the *p-MaxEUTRA, p-MaxUE-FR1*, *tdm-PatternConfig* in the message. so we suggest to relase the *p-MaxEUTRA, p-MaxUE-FR1*, *tdm-PatternConfig* upon the NW indicate the UE relase the MR-DC. |
| Ericsson | We agree with Nokia. This issue was already discussed in RAN2#107bis meeting (we brought a CR for explictly release these three fields in the RRC resume procedure and the RRC reconfiguration procedure).  The outcome was that it was useful for the RRC resume procedure because if the UE was resuming in a different cell, this cell was not aware if those paramenters were released or not (even if the real issue was with the tdm-pattern). According to this, we brought a CR in RAN2#108 that was agreed.  Regarding the RRC reconfiguration case, the outcome of the offline discussion #25 of RAN2#107bis was that in this case of reconfiguration the network knows whether the UE is configured with tdm-pattern or not (same for the power fields) and thus can release it if necessary.  According to this, we do not need to discuss this again and the CR is not needed. |
| Huawei | This issue was submitted by Ericsson and discussed online and offline, so we don’t think it needs to be discussed again. |
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## R2-2003684 – UE measurement capability requirements for NR

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| **Company** | **Views** |
| Nokia | We are in general okay with the principle but then about the exact values here. Is UE really expected to support the minimum of 32 cells for measObject NR (inter-RAT in this case, as CR is for LTE) and 32 cells in blackcell list? The table generally looks quite consistent and that value has remained fairly the same? Could you please explain? |
| Ericsson | We are also in general fine with this. But would also like to know why #minBlackCellRangesperMeasObjectNR is 32 in this CR while the corresponding value in 38.306 is 8. Is this a simple typo perhaps? If not a typo, please explain.  Excerpt from 38.306:  *#minBlackCellRangesperMeasObjectNR The minimum number of blacklist cell PCI ranges that a UE shall be able to store associated with a MeasObjectNR. 8* |
| Lenovo | Partly ok. For blacklist the proposed value of 32 is ok, but #minCellperMeasObjectNR=32 is not ok as for NR only detected cells are supported, i.e. UE will not be configured by MeasObjectNR with a list of NR cells to measure. Therefore, there is no need to specify such a requirement.  @Ericsson: The NR requirement in 38.306 refers to the max number of PCI ranges which can be configured for blacklisted cells, i.e. it is not directly related to the number of blacklisted cells. |
| Huawei | We are OK with the second field of the CR (same view with Lenovo).  Regarding the issue raised by Ericsson, we checked 38331, 38306 and 36331:  **1) 38331 measObjectNR**  Maximum number of cells in cellsToAddModList: 32 (maxNrofCellMeas)  Maximum number of PCI ranges in blackCellsToAddModList: 8 (maxNrofPCI-Ranges)  **2) 38306:**  #minCellperMeasObjectNR: 32  #minBlackCellRangesperMeasObjectNR: 8  **3) 36331 measObjectNR:**  No neighbour cell list  Maximum number of PCI ranges in blackCellsToAddModList: 32 (maxCellMeas)  **4) 36331 measObjectEUTRA:**  Maximum number of cells in cellsToAddModList: 32 (maxCellMeas)  Maximum number of PCI ranges in blackCellsToAddModList: 32 (maxCellMeas)  **5) 36331 UE capability constraints for EUTRA:**  #minCellperMeasObjectEUTRA: 32  #minBlackCellRangesperMeasObjectEUTRA: 32  Since 38306 is only related to NR capability, and LTE configured inter-RAT NR measurement belongs to LTE capability, we think it’s OK that the figures are inconsistent between 38306 and 36331, as long as the figures within 36331 itself are aligned.  In addition, since there’s no neighbour cell list in measObjectNR, we suggest to only keep “#minBlackCellRangesperMeasObjectNR“and remove “#minCellperMeasObjectNR“. |
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## R2-2003156 (+ R2-2003157) – TTI bundling config. in NE-DC

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| **Company** | **Views** |
| Ericsson | We agree that current specification does not allow TTI bundling in SCG.  When DC was added to LTE, it was discussed whether to support TTI bundling in the SCG. There was no clear use case for this and RAN2 instead decided that only the MCG can configure TTI bundling.  We think that the same argument above for normal LTE-DC applies also in NE-DC. I.e. there is no clear use case. The only difference is that the MCG happens to be an NR-node rather than an LTE-node.  This CR seems to be changing behaviour. We think that it is too late to do this change and also we do not see the need to add this new behaviour.  We think RAN2 should not agree this CR. |
| Huawei | This is not backward compatile and will change network and UE behaviours, so we prefer not to have this CR. |
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# Conclusion

TBA