3GPP TSG-RAN WG2 #110-e R2-20xxxxx

Electronic Meeting, June 1-12, 2020

Agenda Item: 5.4.1.1

Source: Qualcomm

Title: [AT109bis-e][009][NR15] Processing Time and Security

Document for: Discussion, Decision

# 1 Introduction

This document is the report of the following email discussion:

* [AT110e][009][NR15] Processing Time and Security (Qualcomm)

 Scope: Treat R2-2004448, R2-2004449, R2-2004531, R2-2004532, R2-2004533, R2-2004534, ~~R2-2005636, R2-2005637~~ (proponents are responsible to explain and drive)

 Part 1: Decision whether to make corrections or not, identify agreeable corrections. Deadline: June 4, 0700 UTC.

 Part 2: For agreeable parts, continuation to agree CRs. Deadline: June 10, 0700 UTC

As described above in the scope, the following Tdocs are covered here (Note: it seems the last two docs are copy paste error and already covered in [008]):

[R2-2004448](http://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_110-e/Docs/R2-2004448.zip) Clarifying RRC procedure performance requirements Nokia, Nokia Shanghai Bell CR Rel-15 38.331 15.9.0 1597 - F NR\_newRAT-Core

[R2-2004449](http://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_110-e/Docs/R2-2004449.zip) Clarifying RRC procedure performance requirements Nokia, Nokia Shanghai Bell CR Rel-16 38.331 16.0.0 1598 - A NR\_newRAT-Core

2 Treated by email [009]

[R2-2004531](http://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_110-e/Docs/R2-2004531.zip) Clarification on avoiding keystream repeat due to COUNT reuse Qualcomm Incorporated, Ericsson, Vodafone, NTT DOCOMO CR Rel-15 38.331 15.9.0 1555 1 F NR\_newRAT-Core [R2-2003334](http://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_110-e/Docs/R2-2003334.zip)

[R2-2004532](http://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_110-e/Docs/R2-2004532.zip) Clarification on avoiding keystream repeat due to COUNT reuse Qualcomm Incorporated, Ericsson, Vodafone, NTT DOCOMO CR Rel-16 38.331 16.0.0 1556 1 A NR\_newRAT-Core [R2-2003335](http://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_110-e/Docs/R2-2003335.zip)

[R2-2004533](http://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_110-e/Docs/R2-2004533.zip) Clarification on avoiding keystream repeat due to COUNT reuse Qualcomm Incorporated, Ericsson, Vodafone, NTT DOCOMO CR Rel-15 36.331 15.9.0 4257 1 F TEI15 [R2-2003336](http://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_110-e/Docs/R2-2003336.zip)

[R2-2004534](http://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_110-e/Docs/R2-2004534.zip) Clarification on avoiding keystream repeat due to COUNT reuse Qualcomm Incorporated, Ericsson, Vodafone, NTT DOCOMO CR Rel-16 36.331 16.0.0 4258 1 A TEI15 [R2-2003337](http://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_110-e/Docs/R2-2003337.zip)

4 Treated by email [009]

(Note: it seems the last two docs listed in the Scope are due to copy paste error as they are also covered in [008].)

# 2 Discussion

Companies are requested to add their comments for each of the treated documents of this email discussion in the boxes below (one for each set of documents to be treated).

## 2.1 Clarifying RRC procedure performance requirements, [R2-2004448](http://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_110-e/Docs/R2-2004448.zip), [R2-2004449](http://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_110-e/Docs/R2-2004449.zip)

Rapp’s comment: these are new CRs.

|  |  |  |
| --- | --- | --- |
| Company | Agree/Disagree | Comments |
| Ericsson | Disagree | It seems to us that the CRs attempts to clarify three different aspects. Our comments on them one-by-one:1. **Which SRBs the RRCReconfiguration-message is sent on**

This aspect is clear from the message definition for RRCReconfiguration where it says:Signalling radio bearer: SRB1 or SRB3If it happened to be so that the processing time was different depending on which SRB the message is sent on, then clearly RAN2 would need to clarify this. But since that is not the case, i.e. since the processing times are identical when sent on SRB1 and SRB3.*Hence we think we should avoid to capture this type of wording* 1. **Which MR-DC options the rows apply for**

Similar comment as above: since the requirements are today not written to be specific for a particular MR-DC option, the reader would understand that it applies to any option.We actually believe that if we would write " Applicable to all MR-DC options." it could be misunderstood as not applying for stand-alone. But the rows do indeed apply for stand-alone to, hence in our mind, it also increases risk of misunderstanding to add such a statement*Hence we think we should avoid to capture this type of wording* 1. **Clarifying which row applies for which scenario (SCell addition vs. SCG addition vs. no SCell nor SCG addition)**

Parts of the note adds wording to clarify which row applies for which scenario. We do however believe that the parenthesis for the three different "Procedural titles" are clear enough. If an SCell is added/released or if an SCG is established/modified/released, 16 ms applied, otherwise 10 ms applies.*Hence we think we should avoid to capture this type of wording*  |
| MediaTek | Disagree | Same view as Ericsson. The further clarification is not necessary. |
| Huawei |  | We don’t see this is an essential change. If companies want to clarify, better to make accurate wording as Ericsson pointed out. |
| Qualcomm |  | Agree with Ericsson’s comment.While we are on this section, something like below could be helpful but these are editorials which can be done in rapp’s CR:

|  |  |  |  |
| --- | --- | --- | --- |
| RRC reconfiguration<<Given the following rows are also for the same message, “(unless specified otherwise for specific cases below)” could be added.>> | *RRCReconfiguration* | *RRCReconfigurationComplete* | 10 |
| RRC reconfiguration (~~scell~~ SCell addition/release) | *RRCReconfiguration* | *RRCReconfigurationComplete* | 16 |
| RRC reconfiguration (SCG establishment/ modification/ release) | *RRCReconfiguration* | *RRCReconfigurationComplete* | 16 |

…

|  |  |  |  |
| --- | --- | --- | --- |
| RRC resume <<Given the following row is also for the same message, “(unless specified otherwise for specific cases below)” could be added.>> | *RRCResume* | *RRCResumeComplete* | 6 or 10 |
| RRC resume (~~scell~~ SCell addition) | *RRCResume* | *RRCResumeComplete* | 16 |

 |
| LG | Disagree | We think the proposal makes more confusion, as pointed out by Ericsson. |
| Apple | Disagree | Same view as other companies. We don’t think the clarification is essential. Compared with it, it is more meaningful to clarify the processing requirement in case of DL segmentation in R16, especially for the worst case where the DL message is segmented as maximum number of segments. |
| NTT DOCOMO | Disagree | Same view as Ericsson. Editorial update proposed by Qualcomm is O.K with us, which can be incorporated into Rapporteur’s CR. |
| Samsung | Partially agree | 1. SRB1/SRB3 aspect agree to the comment from Ericsson
2. MR-DC applicability concerns only “RRC reconfiguration (SCG establishment/ modification/ release)”
3. Otherwise the general clarification seems OK like below which can go in Rapp CR

RRC reconfiguration message not involving serving cell changes, or for *reconfigurationWithSync*.RRC reconfiguration (scell addition/release): RRC reconfiguration message not involving PSCell change.RRC reconfiguration (SCG establishment/ modification/ release): RRC reconfiguration message for PSCell change or SCG modification without SCell addition/release. Applicable to all MR-DC options. |

## 2.2 Clarification on avoiding keystream repeat due to COUNT reuse, [R2-2004531](http://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_110-e/Docs/R2-2004531.zip), [R2-2004532](http://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_110-e/Docs/R2-2004532.zip), [R2-2004533](http://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_110-e/Docs/R2-2004533.zip), [R2-2004534](http://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_110-e/Docs/R2-2004534.zip)

Rapp’s comment: these are revisions of the CRs as discussed in RAN2#109bis-e Offline#007.

|  |  |  |
| --- | --- | --- |
| Company | Agree/Disagree | Comments |
| Ericsson | Agree |  |
| Nokia | Agree |  |
| MediaTek | Agree |  |
| Huawei | Agree but | We thought at last meeting we commented that the coversheet need to be updated to remove UL part as there is no relation with UL only and this was accepted. But seems the current coversheet still says UL? |
| Qualcomm | Agree | To Huawei: Yes, agree with the comment and apologies that was missed. Please check draft revision on cover-page as converged in last meeting’s discussion in the drafts folder (No update in actual change compared to version submitted to this meeting).  |
| LG | Agree but.. | TX\_HFN and RX\_HFN are not defined in NR PDCP. They are only defined in LTE PDCP. In NR PDCP, just “HFN” is used. So, text modification is needed.(*HFN*, as specified in TS 38.323 [5]) |
| Apple | Agree |  |
| NTT DOCOMO | Agree |  |
| Samsung | Agree but | Prefer this goes in Rapp CR |

# Conclusion

In the previous sections we made the following observations:

Based on the discussion in the previous sections following is proposed:

# References

[1]