**3GPP TSG-RAN4 Meeting #97-e R4-20XXXXX**

**Electronic Meeting, 2 – 13 Nov., 2020**

**Agenda item:** 12.4

**Source:** Moderator (Apple)

**Title:** Email discussion summary for [96e][229] NR\_RRM\_enh2

**Document for:** Information

# Introduction

This email discussion summary includes work plan for NR RRM further enhancement.

Candidate target of email discussion for 1st round and 2nd round

* 1st round:
  + Stage 0: Session chairs announce the set of email threads (no later than Monday 8am UTC, Nov. 2)
  + Stage 1: Moderators kick off email discussion (Monday Nov. 2)
  + Stage 2: Companies provide comments for the 1st round (Nov. 2 – Wednesday 6pm UTC Nov. 4)
  + Stage 3: Moderators summarize the status and possible proposals, recommending what decisions can be made for 1st round. A formal t-doc will be used (Thursday 6pm UTC, Nov. 5)
  + Stage 4: After receiving the summary from moderators, session chair may approve documents, make agreements or assign new CRs, WFs, LSs, etc. (no later than Monday 8am UTC, Nov. 9)
* 2nd round:
  + Stage 5: Companies provide comments for 2nd round.
    - Draft WF/LS and revised CRs/TPs shall be shared by Wednesday 1am UTC, Nov. 11.
    - Commenting shall stop by Wednesday 11pm UTC, Nov. 11.
    - Formal tdocs of WF/LS/CRs/TPs shall be uploaded to the Inbox (except Cat A CRs) by Thursday 1am UTC, Nov. 12.
    - Draft moderator summary shall be shared by Thursday 9am UTC, Nov. 12, but moderators are strongly encouraged to share it earlier if possible and delegates to comment as early as possible.
  + Stage 6: Moderators provide 2nd round summary with a formal tdoc by Thursday 6pm UTC, Nov. 12.
  + Stage 7: Session chairs announce close of sessions (no later than 6pm UTC, Nov. 13). Final decisions will be captured in Chairman meeting report (to be shared after the meeting is closed)

# Topic #1: work plan for NR RRM further enhancement (12.4.1)

*Main technical topic overview. The structure can be done based on sub-agenda basis.*

## Companies’ contributions summary

|  |  |  |
| --- | --- | --- |
| **T-doc number** | **Company** | **Proposals / Observations** |
| R4-2014286 | Apple | Work plan for R17 NR RRM further enhancement WI. |
| R4-2015310 | NTT DOCOMO, INC. | View 1: For NR, the same manner as LTE SCell activation delay requirement for deactivated PUCCH SCell should be applied and relaxation factor should be reconsidered.  View 2: SCell activation delay requirement for deactivated PUCCH SCell with valid TA should be same as that of SCell activation delay requirement for deactivated SCell.  View 3: Activation delay for deactivated PUCCH SCell with direct SCell activation should be saparately specified.  View 4: Invalid TA case for direct SCell activation at handoverfor PUCCH SCell should not need to be specified.  View 5: SCell deactivation delay requirement for activated PUCCH SCell should be same as that of for the normal SCell if there are no special reasons. |

## Open issues summary

*Before e-Meeting, moderators shall summarize list of open issues, candidate options and possible WF (if applicable) based on companies’ contributions.*

### Sub-topic 1-1 Work plan for NR RRM further enhancement

*Sub-topic description:*

*Open issues and candidate options before e-meeting:*

**Issue 1-1: Work plan for NR RRM further enhancement**

* Proposals (Apple)
  + Agree the work plan in R4-2014286 for NR RRM further enhancement.
* Recommended WF
  + Discuss the revised work plan in 2nd round.

### Sub-topic 1-2 PUCCH SCell activation requirement

*Sub-topic description:*

*Open issues and candidate options before e-meeting:*

**Issue 1-2: PUCCH SCell activation requirement**

* Proposals (NTT DOCOMO, INC.):
  + View 1: For NR, the same manner as LTE SCell activation delay requirement for deactivated PUCCH SCell should be applied and relaxation factor should be reconsidered.
  + View 2: SCell activation delay requirement for deactivated PUCCH SCell with valid TA should be same as that of SCell activation delay requirement for deactivated SCell.
  + View 3: Activation delay for deactivated PUCCH SCell with direct SCell activation should be saparately specified.
  + View 4: Invalid TA case for direct SCell activation at handoverfor PUCCH SCell should not need to be specified.
  + View 5: SCell deactivation delay requirement for activated PUCCH SCell should be same as that of for the normal SCell if there are no special reasons.
* Recommended WF
  + tentative agreement: Subject to the TU plan, view 1/2/5 are relevant to requirement design and shall be discussed from RAN4 #98e meeting. View 3/4 is out of scope of this WI, since PUCCH SCell activation/deactivation in the WI is based on the “legacy R15 SCell activation” rather than “direct SCell activation from DC/CA enhancement WI”.

## Companies views’ collection for 1st round

### Open issues

**Issue 1-1: Work plan for NR RRM further enhancement**

|  |  |
| --- | --- |
| **Company** | **Comments** |
| Ericsson | Workplan is OK from our point of view |
| Apple | Support the work plan |
| Huawei | support the work plan |
| Vivo | Support the work plan |
| Qualcomm | The workplan is generally ok with minor suggestions.  For *(2) 3GPP RAN4 #98e meeting (February, 2021, 1.5TU, Core part)*   * 1TU may be fine for #98-e, so #98bis-e could use 2TUs   For *(4) 3GPP RAN4 #99-e meeting (May, 2021, 1.5TU, Core part),*   * sending LS to other WGs so RAN4 #100 meeting could address LSins. * bringing in draft CRs according to work split agreed in #98-e if possible. |
| CATT | Fine with the work plan. |
| Nokia | The workplan is in general Ok. Some small comment below:  In Feb. meeting, it was indicated to “conclude” on the impact to other RRM requirements. But in following meeting, the discussion is still ongoing. As this is the 2nd meeting, probably we can leave the conclusion to at least May meeting for core part.   * + - SRS antenna port switching [RAN4]   + Initial discussion on Interruption requirement   Discussion and conclude on impact to other RRM requirements |
| OPPO | Support the work plan. Agree that the TU can be revised according to QC’s comments. |
| NEC | In general ok with the work plan. Small comment is draft CR can be postponed till at least 60% of open issues are solved. |
| CMCC | We are fine with rapporteur’s work plan which focus on core part firstly. |
| ZTE | We are fine with the work plan. |
| Apple | To Qualcomm and OPPO,   1. The TU plan is agreed in RAN plenary and group meeting cannot change that. We can discuss the TU budget for each meeting in next RAN plenary meeting. In this RAN4 group meeting, I’m afraid we are not allowed to change this TU. 2. We are fine to add the bullet of LS handling. For the draft CR part, we think we already mentioned that under each topic, like “Initial draft CR(s) on TS38.133 is expected”   To Nokia,  Our intention is to identify the impacted part of RRM in RAN4 #98e (please note that it does not mean we concluded the exact requirement), but if Nokia think it’s premature to conclude in that meeting, we are fine to delay the conclusion the impacts to RAN4 #98bis-e.  To NEC,  Honestly, it’s difficult to control the timing point of 60% because some of the impacts shall be identified first, so that’s why we planned the draft CR based on meeting timeline; but of course the CR timeline could be flexibly adapted to the real progress. |

**Issue 1-2: PUCCH SCell activation requirement**

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| --- | --- |
| **Company** | **Comments** |
| Ericsson | We agree with the proposed WF and can discuss view 1/2/5 from next meeting. |
| Apple | Support moderator comments, and the scope of PUCCH SCell activation shall be discussed in RAN plenary. |
| Huawei | Agree with the recommended WF. |
| vivo | Support the work plan |
| CATT | Agree with the recommended WF. |
| NTT DOCOMO, INC. | Sorry for your inconvenience especially view 1, 2, and 5, Also we understood that the scope of this WI is only for the legacy R15 SCell activation. We are fine with recommended WF. |
| Nokia | Agree with the recommended WF. We can start from 1/2/5. |
| OPPO | Agree with the recommended WF. |
| NEC | Agree with the recommended WF |
| ZTE | The discussion should starts from next meeting, including the scope. |

### CRs/TPs comments collection

*Major close-to-finalize WIs and Rel-15 maintenance, comments collections can be arranged for TPs and CRs. For Rel-16 on-going WIs, suggest to focus on open issues discussion on 1st round.*

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| --- | --- |
| **CR/TP number** | **Comments collection** |
|  | Company A |
| Company B |
|  |

## Summary for 1st round

### Open issues

*Moderator tries to summarize discussion status for 1st round, list all the identified open issues and tentative agreements or candidate options and suggestion for 2nd round i.e. WF assignment.*

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| --- | --- |
|  | **Status summary** |
| **Issue 1-1: Work plan for NR RRM further enhancement** | *Tentative agreements:*  Based on the 1st round discussion, the work plan paper would be revised based on companies’ comments.  *Candidate options:*  *Recommendations for 2nd round:*  Discuss the revised work plan in 2nd round. |
| **Issue 1-2: PUCCH SCell activation requirement** | *Tentative agreements:*  Subject to the TU plan, view 1/2/5 are relevant to requirement design and shall be discussed from RAN4 #98e meeting. View 3/4 is out of scope of this WI, since PUCCH SCell activation/deactivation in the WI is based on the “legacy R15 SCell activation” rather than “direct SCell activation from DC/CA enhancement WI”.  *Candidate options:*  *Recommendations for 2nd round:*  This issue is closed. |

*Recommendations on WF/LS assignment*

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| --- | --- | --- |
|  | **WF/LS t-doc Title** | **Assigned Company,**  **WF or LS lead** |
| #1 |  |  |

### CRs/TPs

*Moderator tries to summarize discussion status for 1st round and provides recommendation on CRs/TPs Status update*

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| --- | --- |
| **CR/TP number** | **CRs/TPs Status update recommendation** |
| R4-2014286  (Work plan) | *To be revised* |

## Discussion on 2nd round (if applicable)

**Issue 1-1: Work plan for NR RRM further enhancement**

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| --- | --- |
| **Company** | **Comments** |
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## Summary on 2nd round (if applicable)

*Moderator tries to summarize discussion status for 2nd round and provided recommendation on CRs/TPs/WFs/LSs Status update suggestion*

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| --- | --- |
| **CR/TP/LS/WF number** | **T-doc Status update recommendation** |
| XXX | *Based on 2nd round of comments collection, moderator can recommend the next steps such as “agreeable”, “to be revised”* |