3GPP TSG-RAN WG2#113-e DocNumber

Electronic meeting, 25th Jan – 5th Feb 2021

Agenda Item: 5.4.1.2

Source: Ericsson

Title: [AT113-e][014][NR16] RRC I (Ericsson)

Document for: Discussion, Decision

# 1 Introduction

This contribution is related to the following email discussion.

**[AT113-e][014][NR16] RRC I (Ericsson)**

Scope: Treat [R2-2101286](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2//TSGR2_113-e/Docs//R2-2101286.zip), [R2-2101023](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2//TSGR2_113-e/Docs//R2-2101023.zip), [R2-2101024](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2//TSGR2_113-e/Docs//R2-2101024.zip), [R2-2101687](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2//TSGR2_113-e/Docs//R2-2101687.zip), [R2-2101324](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2//TSGR2_113-e/Docs//R2-2101324.zip), [R2-2101193](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2//TSGR2_113-e/Docs//R2-2101193.zip), [R2-2101474](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2//TSGR2_113-e/Docs//R2-2101474.zip), [R2-2101475](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2//TSGR2_113-e/Docs//R2-2101475.zip) TBD some treated on-line first (Monday)

 Phase 1, determine agreeable parts, Phase 2, for agreeable parts Work on CRs.

 Intended outcome: Report and Agreed CRs.

 Deadline: Schedule A

**Deadline:** Email discussions with Deadline ***Schedule A***:

A first round with **Deadline for comments Thursday Jan 28 1200 UTC** to settle scope what is agreeable etc

A Final round with **Final deadline Thursday Feb 4 1200 UTC.** to settle details / agree CRs etc. Additional check points etc if needed are defined by the Rapporteur. In case some parts of an email discussion need more time, doesn’t converge, need on-line treatment etc Rapporteur please contact chair.

# 2 Contact Information

|  |  |
| --- | --- |
| Company | Contact: Name (E-mail) |
| Ericsson | hakan.l.palm@ericsson.com |
| Lenovo | hchoi5@lenovo.com |
| Qualcomm Incorporated | mkitazoe@qti.qualcomm.com |
| Huawei, HiSilicon | zhaoyang@huawei.com |
| ZTE | gao.yuan66@zte.com.cn |
| LG | Sunghoon Jung (sunghoon.jung@lge.com) |
| Intel | Sudeep Palat (Sudeep.k.palat@intel.com) |
| MediaTek | nathan.tenny@mediatek.com |
| vivo | Yanxia.zhang@vivo.com |
|  |  |

## 3.1 Miscellaneous non-controversial corrections Set IX

[R2-2101286](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2//TSGR2_113-e/Docs//R2-2101286.zip) Miscellaneous non-controversial corrections Set IX Ericsson CR Rel-16 38.331 16.3.1 2400 - F NR\_newRAT-Core, TEI16

The 38331 Rapporteur provided a revised draft version in the email discussion folder (top level) with ona additional change (issue #11) added:

[https://www.3gpp.org/ftp/tsg\_ran/WG2\_RL2/TSGR2\_113-e/Inbox/Drafts/%5BOffline-014%5D%5BNR16%5D%20RRC%20I%20(Ericsson)](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_113-e/Inbox/Drafts/%5BOffline-014%5D%5BNR16%5D%20RRC%20I%20%28Ericsson%29)

**Question-1: Please indicate your comments on the draft CR, e.g. by using item numbers from the CR cover page.**

|  |  |  |
| --- | --- | --- |
| **Company Name** | **Yes/No** | **Comments** |
| Lenovo | Yes but | All changes are agreeable. But some further issues can be fixed as well:* 5.2.2.3.2: fix typo in “concatented”, i.e. change to “concatenated”, and set “to” not in italics.

3> create a concatented list of SI messages by appending the *pos-SchedulingInfoList* in *posSI-SchedulingInfo* in *SIB1 to schedulingInfoList* in *si-SchedulingInfo* in *SIB1** 6.2.2 MobilityFromNRCommand: in the description of condition “HO-ToEPCUTRAN” the digit 2 can be removed from “FDD UTRAN2”.

This field is mandatory present in case of inter system handover to "EPC" or "FDD UTRAN2". Otherwise it is absent.* 6.3.1a PosSI-SchedulingInfo field descriptions: the field names below should be corrected.

*pos-SIB-MappingInfo* ->s*hould be “posSIB-MappingInfo”**posSi-Periodicity ->should be “posSI-Periodicity”**sbas-ID* ->s*hould be “sbas-id”.** 6.3.2 ServingCellConfig field descriptions: in the description of “crs-RateMatch-PerCORESETPoolIndex” the spec reference should be corrected to “TS 38.214 [19], clause 5.1.4.2.”

Indicates how UE performs rate matching when both lte-CRS-PatternList1-r16 and lte-CRS-PatternList2-r16 are configured as specified in TS 38.314, clause 5.1.4.2.* 6.3.2 SlotFormatIndicator: to consistent “List” should be added to the field name availableRB-SetsToRelease-r16, i.e. „availableRB-SetsToReleaseList-r16”.

 availableRB-SetsToAddModList-r16 SEQUENCE (SIZE(1..maxNrofAggregatedCellsPerCellGroup)) OF AvailableRB-SetsPerCell-r16 OPTIONAL, -- Need N availableRB-SetsToRelease-r16 SEQUENCE (SIZE(1..maxNrofAggregatedCellsPerCellGroup)) OF ServCellIndex OPTIONAL, -- Need N switchTriggerToAddModList-r16 SEQUENCE (SIZE(1..4)) OF SearchSpaceSwitchTrigger-r16 OPTIONAL, -- Need N switchTriggerToReleaseList-r16 SEQUENCE (SIZE(1..4)) OF ServCellIndex OPTIONAL, -- Need N |
| Qualcomm Incorporated | Yes | Good catches from Lenovo above. |
| Huawei, HiSilicon | yes |  |
| ZTE | Yes |  |
| Intel | Yes |  |
| MediaTek | Yes | We agree with Lenovo’s corrections as well. |
| vivo | Yes，but | Agree with all changes. But Some extra typos are found as following：1. 5.2.2.3.2: semicolon is missing;

2> else if the concerned SI message is configured in the *posSchedulingInfoList* and *offsetToSI-Used* is not configured:3> create a concatented list of SI messages by appending the *posSchedulingInfoList* in *posSI-SchedulingInfo* in *SIB1 to schedulingInfoList* in *si-SchedulingInfo* in *SIB1*;1. 5.2.2.3.2: “posSI*-Periodicity*” should be changed to “pos*SI-Periodicity*”;

3> the SI-window starts at the slot #*a*, where *a* = *x* mod N, in the radio frame for which SFN mod *T* = FLOOR(*x*/N), where *T* is the pos*SI-Periodicity* of the concerned SI message and N is the number of slots in a radio frame as specified in TS 38.213 [13]; |

**Rapporteur summary**: To be added later

## 3.2 Introducing UE Config Release for NR

[R2-2101023](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2//TSGR2_113-e/Docs//R2-2101023.zip) Introducing UE Config Release for NR Nokia, Nokia Shanghai Bell CR Rel-16 38.331 16.3.1 2378 - B TEI16

**Question-2: Please indicate whether CR should be agreed (Yes/No).
If Yes, provide comments on the CR (if any)
If No, provide comments why CR is not needed.**

|  |  |  |
| --- | --- | --- |
| **Company Name** | **Yes/No** | **Comments** |
| Ericsson | No | Topic was discussed in #109bis-e[R2-2003753](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_109bis-e/Docs/R2-2003753.zip)    Introduce RRC version for source configuration     Google Inc.       draftCR Rel-16   38.331  16.0.0   F   NR\_newRAT-Core, TEI16* [012] not Pursued

[R2-2003838](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_109bis-e/Docs/R2-2003838.zip)    Summary of [AT109bis-e][012][NR15] Inter Node Coord     Ericsson           discussion* [012] Noted (outcome used below, proposals agreed)
 |
| Lenovo | No | Agree with Ericsson. |
| Qualcomm incorporated | No | It is good to follow the past agreement. |
| Huawei, HiSilicon | No | Agree with the above comment. |
| Nokia | Yes | [Proponent] First of all the same IE is there in LTE and was introduced starting Rel-9.[Ericsson] The discussion pointed above was for Rel-15 and there was OCTET string proposed to carry RRC Vx.y.z which was disagreed. This is required for network implementation as is the case with LTE also :-)[QC] Past agreement was not to have the IE for Rel-15 but as pointed out for LTE we introduced this in Rel-9 and this is vital for implementation in the network[Huwawei, HiSi] Please see above comments to network vendors. |
| ZTE | No | Agree with Ericsson. |
| LG | No | No strong view from our side, but company views seem remain the same since the conclusion in R2-2003838  |
| Intel | May be | The target must use full configuration if any field in the UE configuration cannot be comprehended and hence this is duplicating that information. Hence we don’t see it as essential. The previous CR was using octet string encoding. This encoding is the same as used in LTE and could hence be considered acceptable. |
| vivo | May be | Technically we think this change is beneficial for assisting the target to decide whether full configuration is adopted or not. Considering that LTE has same IE, it is reasonable to inherit from LTE to introduce it.But if majority views stick to the previous agreement, we are fine not to introduce it in NR. |

**Rapporteur summary**: To be added later

## 3.3 Improving description of ue-ConfigRelease

[R2-2101024](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2//TSGR2_113-e/Docs//R2-2101024.zip) Improving description of ue-ConfigRelease Nokia, Nokia Shanghai Bell CR Rel-16 36.331 16.3.0 4561 - F TEI16

**Question-3: Please indicate whether CR should be agreed (Yes/No).
If Yes, provide comments on the CR (if any)
If No, provide comments why CR is not needed.**

|  |  |  |
| --- | --- | --- |
| **Company Name** | **Yes/No** | **Comments** |
| Ericsson | No | We see no reason to polish existing text in Rel-16 38331.And we see also no reason to impact earlier releases. |
| Huawei, HiSilicon | No | There seems no real difference on the change than before and thus we don’t think it is essential. |
| Nokia | Yes | [Proponent] The text requires update; it reads like this now “UE temporary continues extensions of this part”. [Ericsson and Huawei] Even if it is a text from long time, we need to keep the specification readable, no? No one really can understand what text above means. |
| ZTE | No  | We don’t see any critical issue in current specs. |

|  |  |  |
| --- | --- | --- |
| LG | No | We understand the intention but at the same time do not see the critical need for change on the current text, since it is somehow readable.  |
| Intel | No | We think the original text is correct and do not agree with the proposed changes. The original sentence is about common configuration and the example is meant to indicate that this is only a temporary issue during the HO period. The proposed changes change the meaning of this. |
| Vivo | maybe | The provided CR is acceptable to us if we agree to introduce it in NR. |

**Rapporteur summary**: To be added later

## 3.4 Corrections on the default configuration with Need M

[R2-2101687](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2//TSGR2_113-e/Docs//R2-2101687.zip) Correnctions on the default configuration with Need M Huawei, HiSilicon CR Rel-16 38.331 16.3.1 2428 - F NR\_IAB-Core, 5G\_V2X\_NRSL-Core

**Question-4: Please indicate whether CR should be agreed (Yes/No).
If Yes, provide comments on the CR (if any)
If No, provide comments why CR is not needed.**

|  |  |  |
| --- | --- | --- |
| **Company Name** | **Yes/No** | **Comments** |
| Ericsson | Yes | CR is needed, because Need M and field descriptions are contradicting. Strictly, the draft CR is NBC (could be seen as new requirement on UE that implemented according to the field description), so if CR is to be agreed in this shape, should say on cover page “This CR shall be implemented by UE that supports XXX feature”.Alternatively, to avoid UE change, nw could always include these problematic fields then the parent field is included (change to Need S and state in field description “Network always includes the field”). Also in this case, a sentence on cover page is needed. |
| Qualcomm Incorporated | Yes | We believe the CR captures the original intention, but ready to hear other companies view on backward compatibility. |
| Huawei, HiSilicon | Yes | Proponent. We are fine to add clarification on the cover page as Ericsson suggested. |
| Nokia | Yes | Okay to have the CR, would the proponent be fine to merge this to a rapporteur’s CR? |
| ZTE | Yes | CR is needed. For the IE configured with “Need M”, if it is absent, UE should maintain its current configured value, rather than use the default value.  If the UE has not stored this IE before, which means this IE is not cnfigured, it can use the default value. |
| LG | Yes, but | We agree with the intention of the CR, but wonder we in 331 are strictly and consistently distinguishing “absent” from “not configured” in every occurrence of those terms.  |
| Intel | Yes | Such usage of “absent” was corrected in previous versions. It is necessary to update the new ones that were introduced more recently.  |
| MediaTek | Yes | Agree with Qualcomm that this change reflects the original intention of the spec, and with Ericsson that the current requirements are self-contradictory (and so this may require a UE change for a UE that picked the other requirement to follow). It seems safest to have the “shall be implemented” indication on the coversheet. |
| vivo | Yes | We agree with the intention of this CR, and think this CR is needed. |

**Rapporteur summary**: To be added later

## 3.5 Correction on releasing referenceTimePreferenceReporting and other fields

[R2-2101324](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2//TSGR2_113-e/Docs//R2-2101324.zip) Correction on releasing referenceTimePreferenceReporting and other fields Huawei, HiSilicon CR Rel-16 38.331 16.3.1 2403 - F NR\_IIOT-Core

**Question-5: Please indicate whether CR should be agreed (Yes/No).
If Yes, provide comments on the CR (if any)
If No, provide comments why CR is not needed.**

|  |  |  |
| --- | --- | --- |
| **Company Name** | **Yes/No** | **Comments** |
| Qualcomm Incorporated | Yes, but | obtainCommonLocation, btNameList, wlanNameList and sensorNameList can just be reconfigured after re-establishment or resume. Not as essential as removal of other configurations directly related to UE initiated RRC procedures. |
| Huawei, HiSilicon | Yes | Proponent. We think to have a unified way on handling the parameters could easy the implementation.  |
| Nokia | Yes, but | For MDT we have indeed agreed to release locationInfo for RRC Inactive. This is discussed in offline #808 (and R2-2101425). However, this is not agreed for Reestablishment. Thus, for MDT related ones (location information) better to be covered by MDT AI. For the others may be ok for RRC Inactive, but for Re-establishment – we are not so sure. |
| ZTE | Yes |  |
| Intel | ? | We don’t’ see a strong reason to release the configuration just because it could be different after re-establishment or resume. It should be released if keeping that configuration can cause a problem in the transition period before the UE receives the new configuration in the first RRC Reconfiguration after re-establishment or Resume. |
| MediaTek | Yes | This is consistent with the rest of the specification |
| vivo | maybe | Based on our understanding, the removal of other configuration is not necessary when UE initials RRC re-establishment/resume procedure as the target can fetch UE context from source. If the target has different configuration preference than source, it can perform reconfiguration. Anyway, there is no misalignment between NW and UE.But we are fine with this CR if majority views think it is needed. |

**Rapporteur summary**: To be added later

## 3.6 Correction on stop condition of T320 and T325

[R2-2101193](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2//TSGR2_113-e/Docs//R2-2101193.zip) Correction on stop condition of T320 and T325 ZTE corporation, Sanechips CR Rel-16 38.331 16.3.0 2390 - F NG\_RAN\_PRN-Core

**Question-6: Please indicate whether CR should be agreed (Yes/No).
If Yes, provide comments on the CR (if any)
If No, provide comments why CR is not needed.**

|  |  |  |
| --- | --- | --- |
| **Company Name** | **Yes/No** | **Comments** |
| Lenovo | Partly | * There is another CR R2-2101852 which is discussed in AI 6.12 and email thread [101], and covering the changes from this CR. So, there might be no need to discuss this CR in this email thread.
* Change 1) to T320 is ok.
* Change 2) to T325 is not ok and not needed. Deleting T325 upon PLMN/SNPN selection is not the same as stopping it. Therefore, the description for stop condition should be left empty.
 |
| Qualcomm Incorporated | Yes | To Lenovo’s comment on change 2, we do not think it is desirable to leave T325 running without any function associated with it. |
| Huawei, HiSilicon | Partly | We think the change on T320 should be discussed in [101] and technically we think this change is correct, the change of T325 seems also falling into the [101] discussion and we are not sure whether this change also impacts legacy PLMN selection. Better not duplicate the discussion in multiple offline discussions. |
| Nokia | Partly | Fine to correct but editorial really as only impacting informative section. So category should be D, isn’t it? As others pointed out, this should go to 6.12 where other PRN related corrections are discussed. |
| ZTE | - | This CR will be handled in PRN session together with a similar CR submitted under 6.12:[R2-2101852](file:///C%3A%5C%5CData%5C%5C3GPP%5C%5CRAN2%5C%5CDocs%5C%5CR2-2101852.zip%22%20%5Co%20%22C%3AData3GPPRAN2DocsR2-2101852.zip) Stop conditions of T320 & T325 in NR protocols Asia Pacific Telecom, FGI* Most companies think that the first change (on T320) is needed, while the second is questionable/not only PRN related. There is also a similar CR in the main session.
* Lenovo thinks we can discuss the issue here. Regarding T325, deleting the timer is different than stopping the timer.
* Nokia thinks we can keep the CRs here, as the changes are not complex
* The change on T320 is agreed in principle
* Continue the discussion on the change to T325 (and possibly the coversheet) in offline 101, also considering the CR in R2-2101193 (initially discussed in the main session).
 |
| LG |  | As Lenovo commented, it is true that a similar issue is discussed in AI6.12, but the CR being discussed there is motivated from inter-RAT reselection between LTE and NR. Here, maybe we can discuss R2-2101193 in the context of intra-NR mobility. On change 1, we are fine with this change, given that stopping T320 triggers deletion of dedicated priorities and that SNPN selection is one of sufficient conditions to stop T320. On change 2, we think in the current 38304, there is no stopping condition for T325. What we have in 38304 is just to delete the stored deprioritisation request upon PLMN selection, and in this case we do not think T325 should necessarily stop, given that the congestion on the concerned frequencies may persist (so this T325 case can be treated somehow different from T320) |
| Intel | Partly | T320 change is OK. But the WI code needs to be updated.T325 change is that important. It is only relevant if the UE does PLMN selection to another PLMN and comes back to this PLMN which is not a usual case. Further, if the network provided a deprioritisation for a period of T325, it is OK to keep it even if the UE selects another PLMN. For SNPN, if the UE switches to SNPN mode, it is again not wrong to keep the T325 running. Hence we think it is not an essential change. |
| MediaTek | Yes | For Change 2, we believe that T325 shouldn’t be left running when UE deletes the stored deprioritisation request(s) (when a PLMN selection or SNPN selection is performed on request by NAS). |
| Vivo | See comments | NPN project has agree that “*The change on T320 is agreed in principle*”, the discussion on the change to T325 is continuing in offline 101.We agree with HW that we should not duplicate the discussion in multiple offline discussions.  |

**Rapporteur summary**: To be added later

## 3.7 ASN.1 guidelines for extension of lists using ToAddMod structure

[R2-2101474](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2//TSGR2_113-e/Docs//R2-2101474.zip) Summary of email discussion [Post112-e][060][NR16] Extension of ToAddMod lists (MediaTek) MediaTek Inc. discussion Rel-16 TEI16

* This email discussion report was Noted in Monday 25 Jan main session, need not be further discussed here

[R2-2102256](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2//TSGR2_113-e/Docs//R2-2102256.zip) ASN.1 guidelines for extension of lists using ToAddMod structure MediaTek Inc. CR Rel-16 38.331 16.3.1 2414 1 F TEI16

- Chair: the CR seems overall agreeable, only one comment

- Ericsson found another small issue that need to be fixed.

**Question-7: Please provide comments on the CR in R2-2101475 to achieve agreeable CR as outcome of this email discussion.**

|  |  |
| --- | --- |
| **Company Name** | **Comments** |
| Ericsson | From Draft CR, text for new section A.4.3.xWhen only the size of the list is extended, this extension is reflected in a non-critical extension of the list, with a "SizeExt" suffix added to the end of the field name (before the -vNxy suffix). The differential size of the extended list uses the suffix "Diff". A new ToRelease list is needed, and its range should include only the added list entries (i.e., the new ToRelease list cannot release the original entries ). In many cases, extending the list size will also require an extended list element ID type to account for the increased size of the list; in these cases the element type will need to be extended to include the extended element ID, resulting in a more complex extension (see example 3 for further discussion of this case). The field description table should indicate that the UE considers the original list and the extension list as a single list; thus entries added with the original list can be modified by the extension list (or removed by the extension of the ToRelease list), or vice versa. The result is as shown in the following example:The yellow-marked text is not correct. ListElementID is same in both original and new ToRelease List. What you cannot do is to release the complete/full list (the new size) with only one of the ToReleaseLists, you need both to release the full list size with a single message. This is also in line with what is indicated later, by “The field description table should indicate…, or vice versa” (green-marked).Proposal: 1. Delete the yellow text. 2. Also consider move the blue text immediately after the Example 1 (but not with new bullet “- When fields…). |
| Huawei, HiSilicon | Agree with Ericsson's point on the yellow text. Then maybe we could capture that the new ToRelease list should only be used when the existing list is included and has its maximum size?About the blue text, it does not really fit after example 1, because it actually refers to example 3, so suggest leaving it where it is.In example 3, before the parallel list, perhaps we could add a comment "Not needed if elementId-vNxy and field3-rN are included in ListElement after an already present extension marker"In example 4, we could add -- Size-extended list (Rel-N) with maxNrofListElements-rN = maxNrofListElements + maxNrofListElementsDiff-rN-- skippedListElementId ::= INTEGER (0..maxNrofListElements-1)ListElementId-vNwz ::= INTEGER (maxNrofListElements..maxNrofListElements-rN-1) |
| Nokia | We are okay with the CRs as they are now. |
| Intel | Agree with Ericsson comment about the yellow text. For this example, the index is unchanged. Then, apart from deleting the text in yellow, we should also rephrase the main sentence to say something like “and its range should include only the increase in list size”. Agree with Huawei comment that blue text is better where it is rather than after example 1.Regarding Huawei comment on example 3, isn’t it the same as in the beginning of the text regarding example 3? Comments on example 4 seems reasonable to add. |
| MediaTek | We agree with Ericsson’s comment on the yellow text above and we can update the CR to delete the parenthetical. On moving the blue text, we tend to think it’s clearer if all the text about example 1 is positioned before the ASN.1 example code.We tend to agree with Intel about the comment on example 3—it seems a bit redundant. Huawei’s proposed comment on example 4 makes sense. |

**Rapporteur summary**: To be added later

# 3 Conclusion

To be added later