3GPP TSG-RAN WG2 Meeting #114 Electronic R2-210xxxx

Elbonia, 19 – 27 May 2021

**Agenda item: 5.4**

**Source: Qualcomm (Rapporteur)**

**Title: Offline 006 on Rel-15 Connection Control III**

**WID/SID: NR\_newRAT-Core**

**Document for: Discussion and Decision**

# 1 Introduction

This document reflects the content and outcome of the following email discussion:

* [AT114-e][006][NR15] Connection Control III (Qualcomm)

 Scope: Treat R2-2106188, R2-2106189, R2-2106267, R2-2106270, R2-2105323, R2-2105324, R2-2105767, R2-2105950, R2-2105951, R2-2106182, R2-2106183, R2-2106178, R2-2106179, R2-2106077, R2-2106079

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

 Intended outcome: Report and Agreed CRs.

 Deadline: Schedule A

# 2 Contact Points

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

|  |  |  |
| --- | --- | --- |
| Company | Name | Email Address |
| QCOM (Rapporteur) | Mouaffac Ambriss | mambriss@qti.qualcomm.com  |
| MediaTek | Felix Tsai | Chun-Fan.tsai@mediatek.com |
| ZTE | Liu Yu | liu.yu3@zte.com.cn |
| Ericsson | Antonino Orsino | antonino.orsino@ericsson.com |
| Huawei | Tangxun | tangxun@huawei.com |
| OPPO | ShiCong | shicong@oppo.com |
| Nokia |  | amaanat.ali@nokia.com |
| CATT | Jing Liang | liangjing@catt.cn |
| LG | SungHoon Jung | sunghoon.jung@lge.com  |
| Sequans | Olivier Marco | omarco at sequans.com |
| Samsung | Seungri Jin | seungri.jin@samsung.com |
| vivo | Chenli | Chenli5g@vivo.com |
| Apple | Yuqin Chen | yuqin\_chen@apple.com |
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# 3 Discussion Phase 1

## 3.1 BWP

The CRs related to this topic are:

[R2-2106188](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106188.zip) Clarification on releasing of BWP Huawei, HiSilicon CR Rel-15 38.331 15.13.0 2678 - F NR\_newRAT-Core

[R2-2106189](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106189.zip) Clarification on releasing of BWP Huawei, HiSilicon CR Rel-16 38.331 16.4.0 2679 - A NR\_newRAT-Core

The CR clarifies by adding a note that “When releasing a BWP, the network should ensure that the active BWP is in place after the UE applies the RRC reconfiguration message, e.g. by including *firstActiveDownlinkBWP-Id/firstActiveUplinkBWP-Id* in the same RRC message”.

**Question 1**: do you agree with the addition of the note in order to clarify the expected network behaviour.

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| --- |
| Answers to Question 1 |
| Company | Yes/No | Comments |
| QCOM | Yes | We’re fine with the note |
| MediaTek | No | It is unclear what does “in place” means in the NOTE and we don’t know why “e.g.” is used instead of “i.e.”.We suggest to capture a NOTE same as previous agreement. i.e. “If the network releases the active BWP using RRC reconfiguration message, it includes the *firstActiveDownlinkBWP-Id*/ *firstActiveUplinkBWP-Id* in the RRC Reconfiguration message” |
| ZTE | No | Firstly, We think the NOTE does not accurately capture the agreement ’if the network releases the active BWP using RRC reconfiguration message, it includes the firstActiveDownlinkBWP-Id/ firstActiveUplinkBWP-Id in the RRC Reconfiguration message’, same view as MediaTek.Secondly, we think there is no need to capture anything in spec, also this is majority views in the last e-meeting. |
| Ericsson | No | We do not see the need to capture anything in the specification. Our understanding on when this topic was discussed is that the agreements were captured in the chairman’s note but no specification change was required for any of them. |
| Huawei, HiSilicon | Yes | Proponent |
| OPPO | Yes but | We agree the intention that when network decides to release a active BWP, it ensures that the UE knows which BWP should be activated. We agree the concern from MTK that the added note is not crystal clear, and thus we can simply add what the agreements said, i.e., “For SpCell, if the network releases the active BWP using RRC reconfiguration message, it includes the firstActiveDownlinkBWP-Id/ firstActiveUplinkBWP-Id in the RRC Reconfiguration message” |
| Nokia | No | There seems to be no other approach. We do NOT support any capturing in specification. |
| CATT | No | We have the same concern with MTK, it is not clear what it is meaning of “in place”, it is better to capture the agreement made last meeting if needed. |
| LG | Yes | We agree that it is useful to capture the network behaviour to avoid ambiguous UE states, and for this case adding the Note as proposed seems the best way, given that it is very hard to capture it in conditional presence.  |
| Sequans | Neutral | No strong view (it seems required anyway that the active BWP is in place after RRC reconfig). |
| Intel | Yes | Good to clarify given the discussion. |
| Samsung | No (Seems not essential to clarify in specs) | If needed, we suggest to reword as below:Network ensures that UE is configured with active BWP after applying the RRC reconfiguration message. E.g. network includes firstActiveDownlinkBWP-Id/firstActiveUplinkBWP-Id in the same RRC message as used to release active BWP. |
| vivo | No | We are not whether we need to capture anything the specification. If it is needed, the same agreements should be captured.  |
| Apple | Yes | We prefer clarifying this. MediaTek’s version is fine to us. |
|  |  |  |

**Summary 1**:

* 14 companies provided their feedback:
	+ 5 responded with “Yes”
	+ 7 responded with “No”, and are divided between 2 opinions:
		- Not to capture note in the spec
		- note to be modified along the lines of the previous meeting. Suggested clarification
			* “If the network releases the active BWP using RRC reconfiguration message, it includes the *firstActiveDownlinkBWP-Id*/ *firstActiveUplinkBWP-Id* in the RRC Reconfiguration message”
	+ 1 responded with “Yes but”
		- Prefer to stay within the agreement made in the previous meeting … check this.
	+ 1 responded with “Neutral” with on strong views

**Proposal 1**: **moderator suggests for phase 2:**

* **modify the note to be aligned with the agreement made in the previous meeting**
* **further discussion to figure out if it should be included in the spec or not.**

## 3.2 L1 Parameters

The CRs related to this topic are:

[R2-2106267](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106267.zip) Clarification of recurrence in RateMatchPattern Qualcomm Incorporated CR Rel-15 38.331 15.13.0 2687 - F NR\_newRAT-Core

[R2-2106270](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106270.zip) Clarification of recurrence in RateMatchPattern Qualcomm Incorporated CR Rel-16 38.331 16.4.1 2688 - A NR\_newRAT-Core

[R2-2105323](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2105323.zip) Correction on CrossCarrierSchedulingConfig Introduced by Two PUCCH Group CATT CR Rel-15 38.331 15.13.0 2614 - F NR\_newRAT-Core

[R2-2105324](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2105324.zip) Correction on CrossCarrierSchedulingConfig Introduced by Two PUCCH Group CATT CR Rel-16 38.331 16.4.1 2615 - A NR\_newRAT-Core

### 3.2.2 Clarification of recurrence in RateMatchPattern

In the field description of *periodicityAndPattern* of the IE *RateMatchPattern*, it is stated that the default value for the periodicity is 14 symbols. However, this is not in line with the referenced 38.214 specification where different values of *symbolsInResourceBlock*, i.e. 1 or 2 slots are captured separately. In addition, the slot length is 14 symbols only for NCP is 12 symbols for ECP. Therefore, it will be better just to refer to 38.214 where the pattern is described clearly in more detail.

**Question 2**: Do you agree with the proposed change, by removing the text regarding how the pattern repeats itself when *periodicityAndPattern* is not configured

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| --- |
| Answers to Question 2 |
| Company | Yes/No | Comments |
| QCOM | Yes | Proponentaligning the 38.331 with the 38.214. |
| MediaTek | Yes |  |
| ZTE | Yes |  |
| Huawei, HiSilicon | Yes | To align with PHY specs. |
| OPPO | Yes |  |
| Nokia | Yes | Okay to align and merge to rapporteur CR as this is editorial correction |
| CATT | Yes |  |
| LG | Yes | The removed part is only duplication of what 214 already specified. So, we think there is no value to repeat this in 331.  |
| Sequans | Yes |  |
| Ericsson | yes | can be merged to 38331 rapporteur CR |
| Samsung | Yes | We think changes can be merged to Rap CR. |
| vivo | Yes | To align with RAN1 specification. We are also fine to merge into rapporteur CR. |
| Apple | Yes |  |
|  |  |  |

**Summary 2: 13 companies provided their feedback, with all agree on the CR.**

**Proposal 2: CR to be agreed.**

### 3.2.3 Correction on CrossCarrierSchedulingConfig

The CR captures the network restriction (based on 38.213 spec) that is not allowed to configure cross carrier scheduling cross different PUCCH groups.

**Question 3**: Do you agree with addition of this restriction into the 38.331 spec.

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| Answers to Question 3 |
| Company | Yes/No | Comments |
| QCOM | Yes | The change is aligned with our understanding of the spec.  |
| MediaTek | Yes |  |
| ZTE | Yes | The CRs are fine to us. |
| Huawei, HiSilicon | Yes | Fine to add the clarification, if it is not working otherwise. |
| OPPO | Yes |  |
| CATT | Yes | Proponent |
| LG | Neutral | Since the appropriate network behaviour can be somehow understood from 38.213, capturing the network restriction is not essential. But we have no strong view and go for a majority view.  |
| Ericsson | Yes | Can be added to 38331 rapporteur CR |
| Samsung | No | Not needed. This network restriction is clear from R1 specs. |
| vivo | Yes | This clarification is needed to capture this common understanding.  |
| Apple | Yes |  |
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**Summary 2: 11 companies provided their feedback**

* **8 agree**
* **1 No 🡪 as not needed**
* **1 Neutral 🡪 goes with majority**

**Proposal 2: suggest CR to be agreed.**

## 3.3 Processing Time

The CRs related to this topic are:

[R2-2105767](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2105767.zip) RRC processing time for Scell modification Ericsson, Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

[R2-2105950](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2105950.zip) Correction for RRC Resume latency requirements Huawei, HiSilicon CR Rel-15 38.331 15.13.0 2656 - F NR\_newRAT-Core

[R2-2105951](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2105951.zip) Correction for RRC Resume latency requirements Huawei, HiSilicon CR Rel-16 38.331 16.4.1 2657 - A NR\_newRAT-Core

### 3.3.1 RRC processing time for SCell modification

In the last RAN2#113-bis-e meeting, it was discussed on whether the RRC processing delay requirement for the SCell modification should be changed from 10ms to 16ms. However, no consensus has been reached and the discussion has been postponed.

This discussion paper shared the following observations:

[Observation 1 As in LTE, the processing delay requirement for the SCell modification is considered as the same of a simple *RRCReconfiguration* message (i.e., 10ms).](#_Toc71294077)

[Observation 2 Changing the RRC processing delay for the SCell modification from 10ms to 16ms is a NBC change.](#_Toc71294078)

[Observation 3 RAN4 does not define any specific UE requirement for the SCell modification procedure.](#_Toc71294079)

[Observation 4 The RRC segmentation was introduced in Rel-16 to address the case (among the others) of a large RRC reconfiguration message.](#_Toc71294080)

[Observation 5 Changing the RRC processing delay for the SCell modification from 10ms to 16ms only in Rel-16 it will result in different implementations and this is not desirable.](#_Toc71294081)

Therefore the discussion paper proposes:

[P 1 RAN2 confirms that the RRC processing delay for the SCell modification is 10ms.](#_Toc71294082)

**Question 4**: do you agree with the observations made? if not, please provide your comment accordingly.

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| Answers to Question 4 |
| Company | Yes/No | Comments on the observations |
| QCOM | Neutral | We don’t have a strong opinion, but we would like to make a few points:* Not sure why we need match the NR performance to LTE, when in many places we defined different behaviour for LTE and NR
* When claiming that the change of the processing delay from 10 ms to 16 ms is an NBC, it seems a bit over-stretched claim, as sending UL grant when no UL data is available yet, won’t break the system (may be inefficient) and UE can still SR to request UL grant a at later point.
 |
| MediaTek | Partial | We think observation 2 on NBC is not so correct. But in general we don’t have too strong opinion.  |
| ZTE | Partial | We think changing the delay from 10ms to 16ms can’t cause NBC issue, but if there is no issue found in field, we suggest not to change spec. |
| Ericsson | Yes | What we want to highlight is that this topic pop up in the last meeting because some company see an issue in the message size when the SCell modification is triggered. For this we think that Observation 4 is already clarifying that there is no issue.  |
| Huawei, HiSilicon |  | No strong view.  |
| OPPO | Neutral | If there is no issue identified, we prefer not to change the spec. |
| Nokia | Yes | Proponent and also agree with Ericsson’s feedback. |
| CATT | Neutral | We don’t have a strong opinion. |
| LG | Neutral | Since the appropriate network behaviour can be somehow understood from 38.213, capturing the network restriction is not essential. But we have no strong view and go for a majority view.  |
| Sequans | No | We had sympathy with Apple CR.We also think it may not be NBC as pointed out by QCOM.  |
| Samsung | Yes | Seems safe to avoid NBC change |
| vivo | No | We donot see any issue to have change.  |
| Apple | No | We do not see the NBC issue. According to current spec, for the SCG modification (including SCG SCell modification), the processing delay is 16ms. But for the SCell modification case, the processing delay is 10ms. We do not think current spec is clear.Comparing the two values (16ms and 10ms), we prefer to clarify that 16ms delay is applicable for all SCell modification cases.  |
| Intel | Yes | We agree with the observations. The main reason in Apple CR R2-2103860 to change RRC processing delay for the SCell modification from 10ms to 16ms is to align with the requirement for SCell addition/release. However the reason that SCell addition/release has 16 ms delay requirement is due to the additional interruption time (as in Proposal 4 and Annex B of R2-1819043). |
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**Question 5**: do you agree with the P1? And if not, please provide your comment accordingly.

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| --- |
| Answers to Question 5 |
| Company | Yes/No | Comments on the P1 |
| QCOM | Neutral | Will go with majority |
| MediaTek | Yes | But no need to have any agreement or SPEC change. There is no proposal to change the processing time in this meeting. |
| ZTE | Yes | There is no need to change spec. |
| Ericsson | Yes | Yes, the intention is to have no spec change and leave things as they are. |
| Huawei, HiSilicon |  | No strong view. |
| OPPO | Yes |  |
| Nokia | Yes | Proponent + agree with Ericsson |
| CATT | Neutral | We don’t have a strong opinion. |
| LG | No strong view |  |
| Sequans | No | We would have supported Apple change. Since there is no proposal at this meeting we don't think we need to agree on P1. |
| Samsung | Yes |  |
| vivo | Neutral | No strong view. |
| Apple | No | We proposed in the last RAN2 meeting to align the processing time requirement as 16ms for all MCG and SCG SCell modification cases. This issue was postponed in the last RAN2 meeting. Without enough justification, it’s not acceptable to us to reuse 10ms processing delay for sCell modification.We suggest to not touch the spec for now. |
| Intel | Yes | No need for specification change. |
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**Summary 4: split views and different intentions however all agrees on not modifying the spec for the time being.**

* **5 Neutral/No strong views**
* **2 No**
* **7 Yes**

**Proposal 4: since no consensus is reached on the proposal and since the suggested change is proposing not to have any change in the spec. moderator suggests to not pursue the CR.**

### 3.3.2 Correction for RRC Resume latency requirements

RAN2 have agreed to reuse LTE approach to reduce RRC resumption processing delay requirement in RAN2 #105. In addition, RAN2 also agrees that PDCP/RLC entity corresponding to SRB2/DRB(s) shall be re-established after RRC reestablishment or resumption, just like LTE. in NR an explicit indication is needed to establish the RLC/PDCP (unlike the LTE where entities are implicitly established) by introducing the flag in RB config and RLC bearer config.

Subsequently, there is a need to explicitly adding in the notes that the reestablishPDCP and reestablishRLC flags will be included during Resume procedure and this will not impact the 6 ms delay requirements for the for a UE supporting reduced CP latency.

**Question 6**: do you agree with the proposed changed ? And if not, please provide your comment accordingly.

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| Answers to Question 6 |
| Company | Yes/No | Comments |
| QCOM | Yes | Aligned with our understanding |
| MediaTek | Yes |  |
| ZTE | Yes  |  |
| Ericsson | Yes | No change is preferred. However, if companies are keen to clarify something, since this is not a critical change (is very much editorial) we think that it can be merged in the Rapporteur’s CR |
| Huawei, HiSilicon | Yes | Proponent |
| OPPO | Yes |  |
| Nokia | Yes | Agree with Ericsson |
| CATT | Yes |  |
| LG | Partial  | In general, we are fine the changes, but we wonder about fullConfig case. If fullConfig is configured during resume, RLC bearers are released and hence those two fields are not set.  |
| Sequans | Yes |  |
| Intel | Yes |  |
| Samsung | Yes | Agree with Ericsson |
| vivo | Yes |  |
| Apple | Yes |  |

**Summary 5: all agree with the CR.**

**Proposal 5: suggest CR to be agreed**

## 3.4 Deprioritisation

The CRs related to this topic are:

[R2-2106182](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106182.zip) Clarification on the frequency deprioritisation Huawei, HiSilicon, China Unicom CR Rel-15 38.331 15.13.0 2674 - F NR\_newRAT-Core

Chair: Same issue as IPA R2-2106300/6308 but a different change. If agreeable determine if separate CRs.

[R2-2106183](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106183.zip) Clarification on the frequency deprioritisation Huawei, HiSilicon, China Unicom CR Rel-16 38.331 16.4.1 2675 - A NR\_newRAT-Core

Adding a note in the 38.331 spec to clarify that when a frequency is configured with both absolute priority and deprioritisation, deprioritisation will override absolute priority. In addition the note specifying these points:

1. The deprioritisation will not be deleted when the UE enters RRC connected state
2. The deprioritisation will not be deleted when the UE enters another RAT

**Question 7**: do you agree with the change?

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| Answers to Question 7 |
| Company | Yes/No | Comments |
| QCOM | Yes but | We agree with the intention of the change, as similar topic was discussed in the previous meeting. If CR was agreed, we would like to have a slight modification to the note:*NOTE: The UE* *stores the deprioritisation request irrespective of any cell reselection absolute priority assignments (by dedicated or common signalling) and regardless of the serving cell if it is NR or other RATs unless specified otherwise.*in addition, I would like to know what is the intention behind this clause? |
| MediaTek | Yes | And we think original wording is okay as it aligned with LTE wording. The yellow highlighted part is not used for now but there is no harm to keep it.  |
| ZTE | Yes | This modification is aligned with LTE spec. |
| Huawei, HiSilicon | Yes | Proponent. This “*unless specified otherwise*” clause is the same as NOTE in LTE RRC spec. And we don’t see exceptional case for this. |
| OPPO | Yes | It’s aligned with LTE |
| Nokia | No | First of all, NOTEs are not requirements for UE so saying that NR misses some note from LTE does not mean anything. Secondly in our view deprioritization handling is clear in 38.304.If anything in NOTE needs to be clarified due to editorial nature we are okay to push the change to rapporteur CR quoting LTE alignment. |
| CATT | Yes | Align with LTE |
| LG | Yes | This was discussed several times, and the CR is in line with the conclusion of the previous discussions. The CR will allow us to avoid repeating the same discussion again.  |
| Sequans | Yes | It seems good to align with LTE. |
| Ericsson | Yes | Fine to align with LTE. Could consider to improve the current wording.E.g. “*by dedicated or common signalling” -> “by RRCRelease or system information”*I made a quick search on wordings we use in 38331, and found* - “unless explicitly specified otherwise”
* - “unless stated otherwise”
* “unless explicitly stated otherwise”

So adding “explicitly” could make some senseNo strong view on the text polishing.IIf we agre,e the change can be merged into the 38331 Rapp CR. |
| Intel | May be | The proposed changes are OK for us but the consequences of not approving this does not seem severe to make it an essential correction |
| Samsung | Yes | It makes sense to align with LTE. |
| vivo | Yes | We are fine to align with LTE.  |
| Apple | Yes |  |
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**Question 8**: if you agree with the CR, is there a need for a separate CR, given a similar CR that carries the same intention was “in principle agreed” during the last meeting (R2-2106300/6308)?

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| Answers to Question 8 |
| Company | Yes/No | Comments |
| QCOM | Neutral | Will go with the majority |
| MediaTek | No | We prefer to just have single CR to address same issue.  |
| ZTE | Neutral | Will go with the majority. |
| Huawei, HiSilicon | Yes | This CR also covers “override” handling, which is not mentioned in these IPA CRs. |
| OPPO | No | We slightly prefer the CR from R2-2106182 |
| CATT | Yes | The IPA CRs have the handling on the timer which is not included in this CR. |
| LG | No | Issues are essentially the same, i.e. T325 should not stop, so it seems fine to merge 6182/6283 into 6300/6308. |
| Sequans | Neutral | We are fine to have both CRs, or merge. |
| Intel | No | If there is support to go ahead with the proposed changes, a merged CR should be considered. |
| Samsung | Neutral | Will go with the majority |
| vivo | Neutral | Fine with either way. |
| Apple | No strong view | Could be merged together. |
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**Summary 6: majority agree with the CR, however there are different views whether 2 CRs or only one CR and which CR to be incorporated into the spec.**

**Proposal 6: moderator suggests in phase-2 to decide if:**

* **This CR only to be incorporated into the spec (option-1)**
* **The IPA CR only to be incorporated into the spec (option-2)**
* **Both CRs to be incorporated into the spec (option-3)**

## 3.5 Other

The CRs related to this topic are:

[R2-2106178](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106178.zip) OverheatingIndicationProhibitTimer for SCG in (NG)EN-DC Qualcomm Incorporated CR Rel-15 38.331 15.13.0 2672 - F NR\_newRAT-Core

[R2-2106179](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106179.zip) OverheatingIndicationProhibitTimer for SCG in (NG)EN-DC Qualcomm Incorporated CR Rel-16 38.331 16.4.1 2673 - A NR\_newRAT-Core

This CR clarifies that the prohibit timer (in the 38.331 spec) can’t be used to configure the NR SCG in (NG)EN-DC, and for the (NG)EN-DC case, the prohibit timer for overheating is only configured by the MN eNB. Therefore a clarification was added to the “overheatingIndicationProhibitTimer” field description that this timer is not used in (NG)EN-DC.

**Question 9**: Do you agree with the proposed changed? Please provide comment if needed.

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| --- |
| Answers to Question 9 |
| Company | Yes/No | Comments |
| QCOM | Yes | Proponent As per the current 38.331 spec, nothing prevents the network from configuring this overheating prohibit timer for the NR NCG while UE is in (NG)EN-DC. **This CR is aligned with the previous effort to clarify the overheating parameters (e.g. reducedCCsDL/ reducedCCsUL) and their usage with EN-DC vs NR-DC** |
| MediaTek | No | This is related to the overheating of SCG feature introduced in TEI-16. So, R15 change is not necessary.The IE *OtherConfig* is not included in SN (NR) RRC message at all in R15. In R16, for SCG, IE *OtherConfig* could be used for some configuration, but the field *overheatingAssistanceConfig* should not be present. This is captured in the following description. ***otherConfig***Contains configuration related to other configurations. When configured for the SCG, only fields *drx-PreferenceConfig, maxBW-PreferenceConfig, maxCC-PreferenceConfig, maxMIMO-LayerPreferenceConfig*, *minSchedulingOffsetPreferenceConfig, btNameList, wlanNameList, sensorNameList* and *obtainCommonLocation* can be included. |
| Huawei, HiSilicon | No | Agree with the intention that the “*overheatingIndicationProhibitTimer*” in TS 38.331 cannot be used in (NG)EN-DC. However, in (NG)EN-DC, the configuration for overheating only comes from the MN, the *overheatingAssistanceConfig* won't be included by the SN, so the spec is clear. |
| OPPO | No | The reason for change is not crystal clear to us. It’s agreed that one overheating prohibit timer is shared between MN and SN, and it’s also said that MN (eNB) can configure the timer in EN-DC case. Then, to use, why this timer configured by MN can not be shared by SN? |
| Nokia | No | Agree with Huawei and others |
| CATT | No | Agree with MTK and Huawei. |
| LG | No | We have the same understanding as MTK that the field description of otherConfig already captures the restriction.  |
| Sequans | Neutral | Agree with the intention, no strong view on having the CR. |
| Ericsson | No | Agree with MTK. |
| Samsung | No | We understood that EN-DC overheating has been designed not to allow SN itself to configure it, i.e. MN only is responsible.And, we see another agreement made in RAN2#110e:[033] In (NG)EN-DC, MN determines the configuration for overheating assistance information for SCG. The configuration for the new overheating IE comes together with the configuration for the legacy overheating IE.Accordingly, the timer is always configured for EN-DC overheating mitigation. |
| ZTE | No | Agree with MTK and others.  |
| vivo | No | We agree with this intention, but this IE will not be included in the overheating configuration in (NG)EN-DC from TS 36.331. Thus, there is no need to make such change.  |
| Apple | No | Though the intention is right, we think MediaTek has a point that it is already restricted in the field description in otherConfig. |
|  |  |  |
|  |  |  |

**Summary 7: majority with no support for the CR, as it’s clear from the current spec, that is not possible to have the prohibit timer to be configured by the NR SCG while in EN-DC.**

**Proposal 7: suggest this CR not to be pursued.**

## 3.6 L2 Parameter

The CRs related to this topic are:

[R2-2106077](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106077.zip) Correction on flow remapping to an added DRB Sequans Communications CR Rel-15 38.331 15.13.0 2666 - F NR\_newRAT-Core

[R2-2106079](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106079.zip) Correction on flow remapping to an added DRB Sequans Communications CR Rel-16 38.331 16.4.1 2667 - A NR\_newRAT-Core

The CR clarifies that since a QFI value can be included at most once across configured instances of *SDAP-Config* with the same value of *pdu-Session,* the network cannot perform direct remapping to an added DRB, unless the old DRB is released. Therefore the CR add the removal of the QFI from the old DRB in case of flow remapping to a newly added DRB.

**Question 10**: do you agree with the CR? Please provide comment if needed.

|  |
| --- |
| Answers to Question 10 |
| Company | Yes/No | Comments |
| QCOM | Neutral | We don’t think the CR is needed, but we will go with the majority.  |
| MediaTek | Yes | Not sure why the change is missing in DRB Add part but anyway it seems aligned with the original intention. |
| ZTE | Yes |  |
| Huawei, HiSilicon |  | Not essential, given that the clarification is already there in the field description. |
| OPPO | Yes |  |
| Nokia | No | This correction is not essential and does not change the current understanding as Huawei pointed out. What would be the problem today with the current spec that does not allow this proposed behavior? |
| CATT | Yes |  |
| LG | Yes | Same text is already included for DRB modification case. It might be better to align the text for DRB addition case. |
| Sequans | Yes | (Proponent)@Huawei, @Nokia:The field description says:1- A QFI value can be included at most once in all configured instances of SDAP-Config with the same value of *pdu-Session*AND2- For QoS flow remapping, the QFI value of the remapped QoS flow is only included in mappedQoS-FlowsToAdd in sdap-Config corresponding to the new DRB and **not included in mappedQoS-FlowsToRelease in sdap-Config corresponding to the old DRB**The problem is, if the NW wants to perform direct remapping to an added DRB, it would not explicitly release it from the old DRB (according to 2-)But as the procedural text does not include the removing of the QFI for that case, the UE would have same QFI for 2 DRB which contradicts 1-.So, **direct remapping to a newly added DRB is not possible**.(need to do it in 2 steps: first add a new DRB, then perform remapping). |
| Ericsson (Håkan) | Yes | Fine to have aligned procedure text.Since the change seems not controversial, it could also be merged to 38331 Rapp CR. |
| Intel | Yes | We agree it can be merged with rapp CR |
| Samsung | No | Not essential. If majority want to merge this Rap CR it would be fine. |
| vivo | Yes | It could be merged into rapporteur CR. |
| Apple | Yes | It’s good to make the spec clearer. |

**Summary 8**: 14 companies provided their feedback, with:

* 3 companies claim that this CR is not essential
* 10 companies support the CR
* 1 is neutral

**Proposal 8**: given the large number of supporters for this CR, and given no strong opposition (not essential), moderator suggests to have the CR agreed.

# 4 Discussion Phase 2

## 4.1 BWP

The CRs related to this topic are:

[R2-2106188](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106188.zip) Clarification on releasing of BWP Huawei, HiSilicon CR Rel-15 38.331 15.13.0 2678 - F NR\_newRAT-Core

[R2-2106189](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106189.zip) Clarification on releasing of BWP Huawei, HiSilicon CR Rel-16 38.331 16.4.0 2679 - A NR\_newRAT-Core

**Proposal 1**: **moderator suggests for phase 2:**

* **modify the note to be aligned with the agreement made in the previous meeting**
* **further discussion to figure out if it should be included in the spec or not.**

**Question 11**: do you agree to include the new version of the CR in the spec?

|  |
| --- |
| Answers to Question 11 |
| Company | Yes/No | Comments |
| Ericsson | No | Once again, when we discussed this topic in the last meeting, we took the agreements with the understanding that no spec change was required for any of them.We are open to clarify the agreement in the chairman’s note if the one took in the last meeting is unclear, but we are not fine to have any spec change. |
| Nokia | No | Agree with Ericsson, we already captured the behavior last meeting. |
| MediaTek | Yes/No | We are fine with no SPEC change. If we want to have a CR for this, we should stick to the original agreement.  |
| ZTE | No | Agree with Ericsson. |
| LG | Yes but | Seems more clear to capture the wording agreed in the last meeting in the Note.  |
|  |  |  |

**Summary 9: majority with “not to modify” the spec, if further clarification is needed, it can be captured in chair’s note.**

**Proposal 9: suggest CR not to be pursued**

## 4.2 Deprioritisation

The CRs related to this topic are:

[R2-2106182](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106182.zip) Clarification on the frequency deprioritisation Huawei, HiSilicon, China Unicom CR Rel-15 38.331 15.13.0 2674 - F NR\_newRAT-Core

Chair: Same issue as IPA R2-2106300/6308 but a different change. If agreeable determine if separate CRs.

[R2-2106183](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106183.zip) Clarification on the frequency deprioritisation Huawei, HiSilicon, China Unicom CR Rel-16 38.331 16.4.1 2675 - A NR\_newRAT-Core

**Proposal 6: moderator suggests in phase-2 to decide if:**

* **option-1: This CR (R2-2106182) only to be incorporated into the spec**
* **option-2: The IPA CR (R2-2106300/6308) only to be incorporated into the spec**
* **option-3: Both CRs to be incorporated into the spec**

**Question 12**: please provide which option do you prefer to be incorporated into the spec?

|  |
| --- |
| Answers to Question 12 |
| Company | Option | Comments |
| Huawei, HiSilicon | 3 | We wonder how to interpret option-1 and option-2.Does the option-1 mean the change in IPA CR is merged to this CR?Does the option-2 mean the change in this CR is merged to IPA CR?The changes in these two CRs focus on different UE behaviours, i.e. one for T325 specifically, and one for general principle as “The UE stores the deprioritisation request irrespective of any cell reselection absolute priority assignments (by dedicated or common signalling) and regardless of RRC connections in NR or other RATs unless specified otherwise.”, so it would be good to have them both. |
| Nokia | Option 2 | We are okay to push the new changes to rapporteur CR as they are purely for alignment. Okay to have the IPA CRs only. |
| MediaTek | No strong view | We are okay to have both CR agreed although it may be good to merge them into one CR. |
| ZTE | No strong view | We are okay to have both CR or to merge them into one CR. |
| LG | Option3 | It would be good if both CRs are incorporated into spec. In particular, 6182/6183 specifies normative behaviour in the correct way, i.e., for the two cases where UE stops all timers, we already keep running T325 in one case but not in the concerned case, which is erroneous and now corrected by the CR |
| Ericsson | Option 2 | We agree with Nokia. No need to have two separate CRs. Adding the Note can be done in 38331 Rapp CR |
| Qcom | Option-3  | Both CRs to be incorporated into the spec, and to have CRs merged  |

**Summary 10: majority are with having both CRs incorporated into the spec. in addition, majority are with merging the 2 CRs.**

**Proposal 10: suggest to have these CRs agreed (**[**R2-2106182**](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106182.zip)**/**[**R2-2106183**](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106182.zip)**). In addition, CRs to be merged with IPA CRs (R2-2106300/6308).**

# 5 Conclusion

## 5.1 BWP

The CRs related to this topic are:

[R2-2106188](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106188.zip) Clarification on releasing of BWP Huawei, HiSilicon CR Rel-15 38.331 15.13.0 2678 - F NR\_newRAT-Core

[R2-2106189](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106189.zip) Clarification on releasing of BWP Huawei, HiSilicon CR Rel-16 38.331 16.4.0 2679 - A NR\_newRAT-Core

**Summary: majority with “not to modify” the spec, if further clarification is needed, it can be captured in chair’s note.**

**Proposal: suggest CR not to be pursued**

## 5.2 Clarification of recurrence in RateMatchPattern

The CRs related to this topic are:

[R2-2106267](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106267.zip) Clarification of recurrence in RateMatchPattern Qualcomm Incorporated CR Rel-15 38.331 15.13.0 2687 - F NR\_newRAT-Core

[R2-2106270](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106270.zip) Clarification of recurrence in RateMatchPattern Qualcomm Incorporated CR Rel-16 38.331 16.4.1 2688 - A NR\_newRAT-Core

**Summary: 13 companies provided their feedback, with all agree on the CR.**

**Proposal: CR to be agreed.**

## 5.3 Correction on CrossCarrierSchedulingConfig

[R2-2105323](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2105323.zip) Correction on CrossCarrierSchedulingConfig Introduced by Two PUCCH Group CATT CR Rel-15 38.331 15.13.0 2614 - F NR\_newRAT-Core

[R2-2105324](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2105324.zip) Correction on CrossCarrierSchedulingConfig Introduced by Two PUCCH Group CATT CR Rel-16 38.331 16.4.1 2615 - A NR\_newRAT-Core

**Summary: 11 companies provided their feedback**

* **8 agree**
* **1 No 🡪 as not needed**
* **1 Neutral 🡪 goes with majority**

**Proposal: suggest CR to be agreed.**

## 5.4 RRC processing time for SCell modification

The CRs related to this topic are:

[R2-2105767](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2105767.zip) RRC processing time for Scell modification Ericsson, Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

[R2-2105950](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2105950.zip) Correction for RRC Resume latency requirements Huawei, HiSilicon CR Rel-15 38.331 15.13.0 2656 - F NR\_newRAT-Core

[R2-2105951](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2105951.zip) Correction for RRC Resume latency requirements Huawei, HiSilicon CR Rel-16 38.331 16.4.1 2657 - A NR\_newRAT-Core

**Summary: split views and different intentions however all agrees on not modifying the spec for the time being.**

* **5 Neutral/No strong views**
* **2 No**
* **7 Yes**

**Proposal: since no consensus is reached on the proposal and since the suggested change is proposing not to have any change in the spec. moderator suggests to not pursue the CR.**

## 5.5 Correction for RRC Resume latency requirements

[R2-2105767](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2105767.zip) RRC processing time for Scell modification Ericsson, Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

[R2-2105950](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2105950.zip) Correction for RRC Resume latency requirements Huawei, HiSilicon CR Rel-15 38.331 15.13.0 2656 - F NR\_newRAT-Core

[R2-2105951](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2105951.zip) Correction for RRC Resume latency requirements Huawei, HiSilicon CR Rel-16 38.331 16.4.1 2657 - A NR\_newRAT-Core

**Summary: all agreed with the CRs.**

**Proposal: suggest CR to be agreed**

## 5.6 Deprioritisation

The CRs related to this topic are:

[R2-2106182](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106182.zip) Clarification on the frequency deprioritisation Huawei, HiSilicon, China Unicom CR Rel-15 38.331 15.13.0 2674 - F NR\_newRAT-Core

Chair: Same issue as IPA R2-2106300/6308 but a different change. If agreeable determine if separate CRs.

[R2-2106183](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106183.zip) Clarification on the frequency deprioritisation Huawei, HiSilicon, China Unicom CR Rel-16 38.331 16.4.1 2675 - A NR\_newRAT-Core

**Summary: majority are with having both CRs incorporated into the spec. in addition, majority are with merging the 2 CRs.**

**Proposal: suggest to have these CRs agreed (**[**R2-2106182**](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106182.zip)**/**[**R2-2106183**](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106182.zip)**). In addition, CRs to be merged with IPA CRs (R2-2106300/6308).**

## 5.7 Other

The CRs related to this topic are:

[R2-2106178](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106178.zip) OverheatingIndicationProhibitTimer for SCG in (NG)EN-DC Qualcomm Incorporated CR Rel-15 38.331 15.13.0 2672 - F NR\_newRAT-Core

[R2-2106179](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106179.zip) OverheatingIndicationProhibitTimer for SCG in (NG)EN-DC Qualcomm Incorporated CR Rel-16 38.331 16.4.1 2673 - A NR\_newRAT-Core

**Summary: majority with no support for the CR, as it’s clear from the current spec, that is not possible to have the prohibit timer to be configured by the NR SCG while in EN-DC.**

**Proposal: suggest this CR not to be pursued.**

## 5.8 L2 Parameter

The CRs related to this topic are:

[R2-2106077](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106077.zip) Correction on flow remapping to an added DRB Sequans Communications CR Rel-15 38.331 15.13.0 2666 - F NR\_newRAT-Core

[R2-2106079](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_114-e%5CDocs%5CR2-2106079.zip) Correction on flow remapping to an added DRB Sequans Communications CR Rel-16 38.331 16.4.1 2667 - A NR\_newRAT-Core

**Summary 8**: 14 companies provided their feedback, with:

* 3 companies claim that this CR is not essential
* 10 companies support the CR
* 1 is neutral

**Proposal 8**: given the large number of supporters for this CR, and given no strong opposition (not essential), moderator suggests to have the CR agreed.