3GPP TSG-RAN WG2 #114-e R2-21xxxxx

Electronic, 19th – 27th May, 2021

Agenda Item: 5.4.1

Source: ZTE Corporation

Title: [AT114-e][007][NR15] Connection Control IV (ZTE)

Document for: Discussion, Decision

# Introduction

This document is to kick off the following email discussion:

* [AT114-e][007][NR15] Connection Control IV (ZTE)

Scope: Treat R2-2105392, R2-2105403, R2-2104827, R2-2104828, R2-2105404, R2-2105405, R2-2104905, R2-2104906, R2-2106264, R2-2106265

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

Intended outcome: Report and Agreed CRs.

Deadline: Schedule A

The plan for Schedule A is below:

A first round with **Deadline for comments Friday May 21 1000 UTC** to settle scope what is agreeable etc (phase 1).

A pre-final round with **Deadline for any functional and/or scope comments Wednesday May 26 1200 UTC.** At this point, non-agreeable parts shall be removed/excluded. (phase 2)

A final round (last 24h) for checking and smaller simplification / removal comments only including agreeable parts, with Deadline **EOM** (at this point all outcome documents need to be available in inbox with tdoc numbers).

Additional check-points etc if needed are defined by the Rapporteur. Offline discussion rapporteur must notify chairman / session chair if on-line comeback discussion is needed, if discussion doesn’t converge etc.

# Contact Information

|  |  |
| --- | --- |
| Company | Email address |
| ZTE | liu.yu3@zte.com.cn |
| Apple | naveen.palle@apple.com |
| QCOM | [mambriss@qti.qualcomm.com](mailto:mambriss@qti.qualcomm.com) |
| MediaTek | Chun-fan.tsai@mediatek.com |
| Samsung | jack.jang@samsung.com |
| Vivo | liangjing@vivo.com |
| OPPO | shicong@oppo.com |
| LG Electronics | SeungJune Yi (seungjune.yi@lge.com) |
| CATT | [liangjing@catt.cn](mailto:liangjing@catt.cn) |
| Ericsson | Mats Folke ([mats.folke@ericsson.com](mailto:mats.folke@ericsson.com)) |
| NEC | hisashi.futaki [at]nec.com |
|  |  |

# Discussion

Companies are requested to add their comments on each of the CRs of this email discussion in the questionnaires below.

## First Active Downlink BWP

*Was agreeable last meeting, avoid repeat discussion if possible*

[R2-2106460](file:///D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_114-e\\Docs\\R2-2106460.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_114-eDocsR2-2106460.zip) Correction on firstActiveDownlinkBWP-Id ZTE Corporation, Sanechips, Ericsson, Nokia CR Rel-15 38.331 15.13.0 2530 2 F NR\_newRAT-Core

R2-2106461 Correction on firstActiveDownlinkBWP-Id(R16) ZTE Corporation, Sanechips, Ericsson, Nokia CR Rel-16 38.331 16.4.1 2531 2 A NR\_newRAT-Core

The reason for changes is:

|  |  |
| --- | --- |
| This CR was discussed at RAN2#113bis (R2-2103793) and the contents were concluded to be agreeable (see offline [005] report in R2-2104633).  However, the CR was marked as postponed by mistake and hence we resubmit this for approval. The actual proposed change is same as the one in R2-2103793.  In the current RRC spec the following description highlighted below, is not accurate because the intention of this is to indicate that the network shall set the *firstActiveDownlinkBWP-Id* and *firstActiveUplinkBWP-Id* to the same value **when performing RA**.   |  | | --- | | ***firstActiveDownlinkBWP-Id***  If configured for an SpCell, this field contains the ID of the DL BWP to be activated upon performing the RRC (re-)configuration. If the field is absent, the RRC (re-)configuration does not impose a BWP switch.  If configured for an SCell, this field contains the ID of the downlink bandwidth part to be used upon MAC-activation of an SCell. The initial bandwidth part is referred to by BWP-Id = 0.  Upon PCell change and PSCell addition/change, the network sets the *firstActiveDownlinkBWP-Id* and *firstActiveUplinkBWP-Id* to the same value. |     That is the UE expects to use the active DL BWP with the same *bwp-Id* as the active UL BWP when performing RA. |

**Q1: Do you agree with the two CRs R2-2106460 and** **R2-2106461?**

|  |  |  |
| --- | --- | --- |
| Company | Agree?  (Yes or No) | Comments |
| Apple | ok |  |
| QCOM | Yes |  |
| MediaTek | Yes |  |
| Huawei, HiSilicon | Yes | Should be merged to rapporteur CR according to the consensus of the last meeting in R2-2104633:  ***For Active BWP change (R2-2103793 and R2-2103794):***  *Proposal 2: Agree the changes in R2-2103793 and R2-2103794 and merge these into the rapporteur’s CRs.* |
| Samsung | Yes | Fine with Huawei's suggestion too. |
| Nokia | Yes | Fine with Huawei's suggestion too. |
| ZTE | Yes | The two CRs involve functional modification, so we friendly suggest the two CRs should be separate CRs, and do not be merged to rapporteur CR. |
| vivo | Yes | Fine to merge the CRs to rapporteur CR based on last meeting discussion. |
| OPPO | Yes |  |
| LG | Yes |  |
| CATT | Yes |  |
| Ericsson | Yes (proponent) |  |
| NEC | Yes |  |
|  |  |  |

**Summary:**

Companies’ views are summaried below:

Yes: 13( 4 companies are fine to merge the CRs to rapporteur CR)

No: 0

All companies agree the CRs, and 4 companies are fine to merge the CRs to rapporteur CR. Regarding that these CRs involve functional modification ( i.e. If the network sets the *firstActiveDownlinkBWP-Id* and *firstActiveUplinkBWP-Id* to the different value upon reconfiguration with sync except PCell change and PSCell addition/change, the UE may fail to perform the actions.), rapporteur would like to suggest these CRs to be agreed as separate CRs, and to propose:

**Proposal 1: R2-2106460 and R2-2106461 are agreed.**

## Default configuration

[R2-2104827](file:///D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_114-e\\Docs\\R2-2104827.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_114-eDocsR2-2104827.zip) CR on default configuration OPPO CR Rel-15 38.331 15.13.0 2583 - F NR\_newRAT-Core

[R2-2104828](file:///D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_114-e\\Docs\\R2-2104828.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_114-eDocsR2-2104828.zip) CR on default configuration OPPO CR Rel-16 38.331 16.4.1 2584 - A NR\_newRAT-Core

The reason for changes is:

|  |
| --- |
| In 5.3.7.4, it is specified that   1. apply the **specified configuration** defined in 9.2.1 for SRB1;   However, 9.2.1 is for “default” configuration, of which the definition is different from “specified” configuration defined in 9.1.x, i.e., default configuration can be overriden but specified configuration can**not** be. |

**Q2: Do you agree with the problem identified and the changes in R2-2104827,** **R2-2104828?**

|  |  |  |
| --- | --- | --- |
| Company | Agree?  (Yes or No) | Comments |
| Apple | No strong view, the intention has not changed. |  |
| QCOM | Yes |  |
| MediaTek | Yes | Looks like editroial. Suggest to put in rapporteur’s CR |
| Huawei, HiSilicon | Yes | Can be merged to rapporteur CR. |
| Samsung | - | Fine but minor/editorial, so prefer merging it into rapprteur CR. |
| Nokia | Yes, but | Merge it to rapporteur CR |
| ZTE | Yes |  |
| vivo | Yes |  |
| OPPO | Yes | Proponent |
| LG | Yes | We think it is not editorial, but ok to merge to rapporteur CR. |
| CATT | Yes | It should be merged to rapporteur CR |
| Ericsson | Yes | Merge with Rapporteur CR. |
| NEC | Yes | better to merge to Rapporteur CR |
|  |  |  |

**Summary:**

Companies’ views are summaried below:

Yes: 12( 8 companies suggest to merge the CRs to rapporteur CR)

No strong view: 1

No: 0

Absolute majority companies agree the CRs, and majority companies suggest to merge the CRs to rapporteur CR. Rapporteur would like to suggest these CRs to be merged to rapporteur CR, and to propose:

**Proposal 2: R2-2104827 and** **R2-2104828 are merged to rapporteur CR.**

## AperiodicSRS-Resource

[R2-2105404](file:///D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_114-e\\Docs\\R2-2105404.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_114-eDocsR2-2105404.zip) Correction on aperiodicSRS-Resource ZTE Corporation, Sanechips CR Rel-15 38.331 15.13.0 2624 - D NR\_newRAT-Core

[R2-2105405](file:///D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_114-e\\Docs\\R2-2105405.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_114-eDocsR2-2105405.zip) Correction on aperiodicSRS-Resource(R16) ZTE Corporation, Sanechips CR Rel-16 38.331 16.4.1 2625 - A NR\_newRAT-Core

The reason for changes is:

|  |
| --- |
| 1. In the RAN2#111-e meeting, the CR R2-2007504 was agreed and merged to rapporteur CR, and the following agreement was made:  * [003] Both Partly merged, The reference clause in the field description of *aperiodicSRS-ResourceTriggerList* needs to be updated: change “6.1.1.2” to “6.1”. This change is merged into Rapporteur’s CR for Rel-15/16 specification.   But the agreement is not correct, the intention of the CR R2-2007504 is to change “6.1.1.2” to “6”.  In addition, the field description of *aperiodicSRS-ResourceTrigger* should be modified simultaneously.  2. The field description of *rateMatchPatternToAddModList* in *ServingCellConfig* is not correct, and the correct quote is 5.1.4.1, not 5.1.2.2.3, same as the field description of *rateMatchPatternToAddModList* in *ServingCellConfigCommon*. |

**Q3: Do you agree with the problem identified and the changes in R2-2105404, R2-2105405?**

|  |  |  |
| --- | --- | --- |
| Company | Agree?  (Yes or No) | Comments |
| Apple | Yes |  |
| QCOM | Yes |  |
| MediaTek | Yes | Looks like editroial. Suggest to put in rapporteur’s CR |
| Huawei, HiSilicon | Yes | Can be merged to rapporteur CR. |
| Samsung | - | Fine but minor/editorial, so prefer merging it into rapprteur CR. |
| Nokia | Yes, but | Merge it to rapporteur CR |
| ZTE | Yes |  |
| vivo | Yes |  |
| OPPO | Yes |  |
| LG | Yes |  |
| CATT | Yes | Merge it to rapporteur CR |
| Ericsson | Yes | Merge with Rapporteur CR |
| NEC | Yes | better to merget to Rapporteur CR |
|  |  |  |

**Summary:**

Companies’ views are summaried below:

Yes: 13( 7 companies suggest to merge the CRs to rapporteur CR)

No: 0

All companies agree the CRs, and slight majority companies suggest to merge the CRs to rapporteur CR. Rapporteur would like to suggest these CRs to be merged to rapporteur CR, and to propose:

**Proposal 3: R2-2105404 and R2-2105405 are merged to rapporteur CR.**

## CSI-RS configuration

[R2-2104905](file:///D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_114-e\\Docs\\R2-2104905.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_114-eDocsR2-2104905.zip) Correction on CSI-RS configuration vivo CR Rel-15 38.331 15.13.0 2587 - F NR\_newRAT-Core

[R2-2104906](file:///D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_114-e\\Docs\\R2-2104906.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_114-eDocsR2-2104906.zip) Correction on CSI-RS configuration vivo CR Rel-16 38.331 16.4.1 2588 - A NR\_newRAT-Core

The reason for changes is:

|  |
| --- |
| 1. In current description of parameter *maxNrofNZP-CSI-RS-ResourceSets*, it is mentioned that:   *Maximum number of NZP CSI-RS resources per cell.*  Actually, more than one resources could be configured in one resource set. This parameter should be used to define the maximum number of NZP CSI-RS resource sets per cell. Thus, the corresponding description should be updated.  Similar issue exists for parameter *maxNrofCSI-IM-ResourceSets*.   1. In the description of parameter *maxNrofCSI-IM-Resources* and *maxNrofCSI-IM-ResourcesPerSet*, TS 38.214 is referred.   Actually, in TS 38.214, there is no such parameters. Only the *csi-IM-ResourceId* or the entry number (i.e. *csi-IM-ResourcesForInterference*) in *csi-IM-ResourceSetList* is referred.  Thus, the corresponding description should be updated. |

**Q4: Do you agree with the problem identified and the changes in R2-2104905,** **R2-2104906?**

|  |  |  |
| --- | --- | --- |
| Company | Agree?  (Yes or No) | Comments |
| Apple | Yes | rapporteur CR of editorial changes? |
| QCOM | Yes | editorial change ... may be a rapporteur CR |
| MediaTek | Yes | Looks like editroial. Suggest to put in rapporteur’s CR |
| Huawei, HiSilicon | Yes | Can be merged to rapporteur CR. |
| Samsung | - | Fine but minor/editorial, so prefer merging it into rapprteur CR. |
| Nokia | Yes, but | Can be merged to rapporteur's CR as these are purely editorial changes and nothing changes with semantics. |
| ZTE | Yes | Suggest to merge it into rapporteur’s CR. |
| Vivo | Yes |  |
| OPPO | Yes |  |
| LG | Yes |  |
| CATT | Yes | It can be merged into rapporteur CR |
| Ericsson | Yes | Merge with Rapporteur CR. |
| NEC | Yes | we assume these are editorials, so can be merged to Rapp CR |
|  |  |  |

**Summary:**

Companies’ views are summaried below:

Yes: 13( 10 companies suggest to merge the CRs to rapporteur CR)

No: 0

All companies agree the CRs, and majority companies suggest to merge the CRs to rapporteur CR. Rapporteur would like to suggest these CRs to be merged to rapporteur CR, and to propose:

**Proposal 4: R2-2104905 and R2-2104906 are merged to rapporteur CR.**

## A-CSI trigger state configuration

[R2-2106264](file:///D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_114-e\\Docs\\R2-2106264.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_114-eDocsR2-2106264.zip) Correction on A-CSI trigger state configuration vivo CR Rel-15 38.331 15.13.0 2685 - F NR\_newRAT-Core

[R2-2106265](file:///D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_114-e\\Docs\\R2-2106265.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_114-eDocsR2-2106265.zip) Correction on A-CSI trigger state configuration vivo CR Rel-16 38.331 16.4.1 2686 - A NR\_newRAT-Core

The reason for changes is:

|  |
| --- |
| Parameters *nzp-CSI-RS-ResourcesforChannel* and *qcl-info-forChannel* are now being referred in the field descriptions of *csi-IM-ResourcesForInterference* and *qcl-info*  , however, it is not correct since these two parameters are not defined in the current specification.  Actually, *nzp-CSI-RS-ResourcesforChannel* should be replaced to the *resourceSet* IE in *CSI-AssociatedReportConfigInfo*. And *qcl-info-forChannel* should be replaced to *qcl-info*. |

**Q5: Do you agree with the problem identified and the changes in R2-2106264,** **R2-2106265?**

|  |  |  |
| --- | --- | --- |
| Company | Agree?  (Yes or No) | Comments |
| Apple | Yes |  |
| QCOM | Yes |  |
| MediaTek | Yes with comment | We think the term „above“ is a little bit strange. Instaed of „*resourceSet* above“, we suggest to use the term „*resourceSet* within *nzp-CSI-RS*“  Also this kind of change is more suitable in rapporteur’s CR. |
| Huawei, HiSilicon | Yes | MTK’s update is fine to us. |
| Samsung | - | Fine but minor/editorial, so prefer merging it into rapprteur CR. We are also fine with suggestion from MediaTek. |
| Nokia | Yes, but | Can be merged to rapporteur's CR as these are purely editorial changes and nothing changes with semantics. |
| ZTE | Yes | Agree with MediaTek’s view. |
| vivo | Yes | Proponent.  We are fine with MediaTek’s suggestion. |
| OPPO | Yes | Go with MediaTek’s suggestion |
| LG | Yes | Ok with MTK’s update. |
| CATT | Yes |  |
| Ericsson |  | We can merge with rapporteur CR. The ”above” is already used in the same field description but either way is ok. |
|  |  |  |

**Summary:**

Companies’ views are summaried below:

Yes: 12( 9 companies suggest to merge the CRs to rapporteur CR, and 6 companies are fine to MediaTek’s suggestion.)

No: 0

All companies agree the CRs. Majority companies suggest to merge the CRs to rapporteur CR, and 6 companies are fine to MediaTek’s suggestion. Rapporteur would like to suggest these CRs to be revised considering MediaTek’s suggestion, and to be merged to rapporteur CR.

**Proposal 5: R2-2106264 and R2-2106265 are to be revised considering MediaTek’s suggestion, and the revision CRs should be merged to rapporteur CR.**

# Conclusion

**Proposal 1: R2-2106460 and R2-2106461 are agreed.**

**Proposal 2: R2-2104827 and** **R2-2104828 are merged to rapporteur CR.**

**Proposal 3: R2-2105404 and R2-2105405 are merged to rapporteur CR.**

**Proposal 4: R2-2104905 and R2-2104906 are merged to rapporteur CR.**

**Proposal 5: R2-2106264 and R2-2106265 are to be revised considering MediaTek’s suggestion, and the revision CRs should be merged to rapporteur CR.**

# References

[1]