**3GPP TSG-RAN WG2 Meeting #121bis-e R2-210xxxx**

**Online, April 17-26, 2023**

**Agenda Item: 5.1.1**

**Source: Huawei, HiSilicon**

**Title: Summary of [AT121bis-e][001][NR1516] Stage 2 and RRC 0**

**Document for: Discussion and decision**

# Introduction

This document summarizes the following offline discussion.

* [AT121bis-e][001][NR1516] Stage 2 and RRC 0 (Huawei)

Scope: Treat R2-2304108, R2-2304109, R2-2304110, After online: R2-2303465, R2-2303466, R2-2303279, R2-2303280, R2-2303281.
Ph1: Determine agreeable parts. Ph2: For agreeable parts, if any, reflect these in agreeable CRs.

Intended outcome: Report, If applicable: In-Principle-Agreed CRs

Deadline: Schedule 1

# Contact from companies

|  |  |
| --- | --- |
| **Company** | **Name (Email)** |
| Huawei, HiSilicon | Yiru Kuang (kuangyiru@huawei.com) |
| OPPO | shicong@oppo.com |
| MediaTek | Felix Tsai (chun-fan.tsai@mediatek.com) |
| vivo | Yitao Mo (yitao.mo@vivo.com) |
| Nokia | Benoist Sébire (benoist.sebire@nokia.com) |
| ZTE | LiuJing (liu.jing30@zte.com.cn) |
| Apple | Naveen Palle (naveen.palle@apple.com) |
| Qualcomm Inc | Mouaffac (mambriss@qti.qualcomm.com)  |
| Ericsson | Tony (antonino.orsino@ericsson.com) |
| Samsung | Jaehyuk Jang (jack.jang@samsung.com) |
| NEC | Hisashi Futaki (hisashi.futaki @ nec.com)  |
| CATT | zhangbufang@catt.cn |
| Intel | Sudeep.k.palat@intel.com |

# Discussion (Phase 1)

## Stage 2 correction

[R2-2304108](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_121bis-e%5CDocs%5CR2-2304108.zip) Correction to information delivered in Handover Request message Huawei, HiSilicon CR Rel-15 38.300 15.14.0 0662 - F NR\_newRAT-Core

[R2-2304109](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_121bis-e%5CDocs%5CR2-2304109.zip) Correction to information delivered in Handover Request message Huawei, HiSilicon CR Rel-16 38.300 16.12.0 0663 - A NR\_newRAT-Core

[R2-2304110](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_121bis-e%5CDocs%5CR2-2304110.zip) Correction to information delivered in Handover Request message Huawei, HiSilicon CR Rel-17 38.300 17.4.0 0664 - A NR\_newRAT-Core

3 tdocs moved from 3.1.2

In RAN2#107, the following agreement was achieved:

Agreements

1 Reuse the ServingCellConfigCommon field in ReconfigurationWithSync of RRCReconfiguration in AS-Config for transmitting common configuration of source spCell (i.e. PCell and PSCell if configured) to target upon NR handover. (this changes the understanding from last meeting that ReconfigurationWithSync would not be included in the reconfiguration message)

According to this agreement, the *ServingCellConfigCommon* in *RRCReconfiguration* is reused for transmitting common configuration of the source cell to target cell upon NR handover. Since *ServingCellConfigCommon* includes the main information of SIB1, there is no need to transmit SIB1 of source cell to target cell for handover. Besides, there is no agreement that SIB1 of source cell needs to be delivered to target cell for handover. However, TS 38.300 specifies that SIB1 from the source cell is included in the Handover Request message:

To avoid misalignment between stage-2 and stage-3, in stage 2 it should clearly state that Handover Request message includes common configuration of the source gNB rather than SIB1.

Thus, it is proposed to change “SIB1” to “serving cell common configuration” in Handover Request message.

|  |
| --- |
| 3. The source gNB issues a Handover Request message to the target gNB passing a transparent RRC container with necessary information to prepare the handover at the target side. The information includes at least the target cell ID, KgNB\*, the C-RNTI of the UE in the source gNB, RRM-configuration including UE inactive time, basic AS-configuration including *antenna Info and DL Carrier Frequency*, the current QoS flow to DRB mapping rules applied to the UE, the serving cell common configuration from source gNB, the UE capabilities for different RATs, PDU session related information, and can include the UE reported measurement information including beam-related information if available. The PDU session related information includes the slice information and QoS flow level QoS profile(s). |

**Q1 Do companies agree with the intent of the CRs above?**

|  |  |  |
| --- | --- | --- |
| **Company** | **Yes/No** | **Comments** |
| Huawei, HiSilicon | Yes (proponent) |  |
| OPPO | Maybe | We are ok on the intention, but not sure whether we need this CR, because stage-2 spec “SIB1” does not necessarily mean source transmit SIB1 to target cell, it can be understood as the main information of SIB1. Stage-3 defines the details information needs to be tramsminted.  |
| MediaTek | Maybe | Fine with this change but doesn’t think this is essential. Anyway stage 3 is clear.  |
| vivo | No | Based on the structure of *HandoverPreparationInformation* message (containing RRC Reconfiguration message) as defined in subclause 11.2.2 of TS 38.331, we think the term “SIB1” is more accurate and clearer. We prefer to keep the existing text as nothing is broken.  |
| Nokia | Not as such | First we would like to point out that despite the guidance, this was not checked with the 38.300 rapporteur first.The intention is ok but suggested wording not appropriate for a Stage 2 description (as it introduces something that is not defined).Two alternatives1. Use SIB1 *information* instead of just SIB12. Remove SIB1 and add an e.g. before listing all the pieces of information that can be included. |
| ZTE | See comments | We think the intention of CR is correct, but the wording proposed in CR may cause confusion that only common configuration (not dedicated) needs to be delivered to target cell. The alt.1 proposed by Nokia looks simpler.  |
| Apple | Ok with the intention | But not sure if the CR is really needed. |
| Qualcomm Inc | Not sure if anything is needed | If it’s really needed, we’re fine with Nokia’s Alt-1 |
| Ericsson | Maybe no | Probably the issue the CR is trying to solve is minor, and, since this is stage2 is not critical to correct this.  |
| Samsung | Not essential | But we can live with Nokia's Alt-1. |
| NEC | Maybe | As the current text would not cause critical issues with referring to actual Stage 3, we see no strong need for this.If necessary, we tend to think the alternative 1 from Nokia “SIB1 information” looks better in order to avoid using (and thus need to refer) Stage3 details. |
| CATT | Not essential | We agree with the intention, but it is stage 2 wording which is not critical, and it exists since Rel-15 we think it has no issue for implementation.  |
| Intel | OK with the intention | While it is good to correct in some manner, it is not essential (stage 2 text may not always be so accurate).  |

Most of companies (11) agree with the intention, although many companies think the change is not essential, the suggested alt.1 by Nokia (38.300 rapporteur) can be acceptable for at least 6 companies. From moderator’s view, it is better to avoid misalignment between stage-2 and stage-3 spec, so it is suggested to have this correction using the accurate and simple wording given by 38.300 rapporteur.

**Proposal: For CR R2-2304108/4109/4110, change the “SIB1” to “SIB1 information”.**

## Need code for secondary DRX group

[Post121][041][NR1617] need code for secondary DRX group – treat online first

[R2-2303464](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_121bis-e%5CDocs%5CR2-2303464.zip) Summary of need code for secondary DRX group Huawei, HiSilicon discussion Rel-16 TEI16

[R2-2303465](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_121bis-e%5CDocs%5CR2-2303465.zip) Correction on the need code for secondary DRX group Huawei, HiSilicon CR Rel-16 38.331 16.12.0 4012 - F TEI16

[R2-2303466](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_121bis-e%5CDocs%5CR2-2303466.zip) Correction on the need code for secondary DRX group Huawei, HiSilicon CR Rel-17 38.331 17.4.0 4013 - A TEI16

[Moderator] After online, a new offline discussion [AT121bis-e][025][NR1516] is assigned for CR update. So no more discussion here.

## RefServCellIndicator

refServCellIndicator – treat online first

[R2-2303278](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_121bis-e%5CDocs%5CR2-2303278.zip) Further consideration on refSerCellIndicator ZTE Corporation, Sanechips discussion Rel-15 NR\_newRAT-Core

Postponed last meeting to allow further checking, correction may have compatiblity consequences.

[R2-2303279](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_121bis-e%5CDocs%5CR2-2303279.zip) Corrections on refServCellIndicator ZTE Corporation, Sanechips, Nokia, Nokia Shanghai Bell CR Rel-15 38.331 15.21.0 3999 - F NR\_newRAT-Core

[R2-2303280](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_121bis-e%5CDocs%5CR2-2303280.zip) Corrections on refServCellIndicator ZTE Corporation, Sanechips, Nokia, Nokia Shanghai Bell CR Rel-16 38.331 16.12.0 4000 - A NR\_newRAT-Core

[R2-2303281](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_121bis-e%5CDocs%5CR2-2303281.zip) Corrections on refServCellIndicator ZTE Corporation, Sanechips, Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.4.0 4001 - A NR\_newRAT-Core

[Moderator] After online, a new offline discussion [AT121bis-e][026][NR1516] is assigned for CR update. So no more discussion here.

# Conclusions

*To be added…*

# References

1. R2-2304108 Correction to information delivered in Handover Request message Huawei, HiSilicon
2. R2-2304109 Correction to information delivered in Handover Request message Huawei, HiSilicon
3. R2-2304110 Correction to information delivered in Handover Request message Huawei, HiSilicon
4. R2-2303464 Summary of need code for secondary DRX group Huawei, HiSilicon
5. R2-2303465 Correction on the need code for secondary DRX group Huawei, HiSilicon
6. R2-2303466 Correction on the need code for secondary DRX group Huawei, HiSilicon
7. R2-2303278 Further consideration on refSerCellIndicator ZTE Corporation, Sanechips
8. R2-2303279 Corrections on refServCellIndicator ZTE Corporation, Sanechips, Nokia, Nokia Shanghai Bell
9. R2-2303280 Corrections on refServCellIndicator ZTE Corporation, Sanechips, Nokia, Nokia Shanghai Bell
10. R2-2303281 Corrections on refServCellIndicator ZTE Corporation, Sanechips, Nokia, Nokia Shanghai Bell