3GPP TSG-RAN WG2 #111-e R2-20xxxxx

Electronic Meeting, 17th – 28th August 2020

Agenda Item: 6.1.1

Source: Ericsson

Title: [AT111-e][014][NR16] RRC Misc II

Document for: Discussion, Decision

# 1 Introduction

This document is to kick off the following email discussion:

* **[AT111-e][014][NR16] RRC Misc II (Ericsson)**

Scope: Treat R2-2007275, R2-2007276, [R2-2007077](file:///D:/Documents/3GPP/tsg_ran/WG2/TSGR2_111-e/Docs/R2-2007119.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_111-eDocsR2-2007119.zip), R2-2006915, R2-2006934 (proponents to drive)

Part 1: Decision whether to make corrections, identify agreeable parts.

Deadline: Aug 20, 0900 UTC.

Part 2: For agreeable parts, continuation to agree CRs.

Deadline: Aug 26, 0900 UTC.

# 2 Discussion

Companies are requested to add their comments for each of the treated CRs of this email discussion in the boxes below (one for each CR to be treated).

### 2.1.1 Misc corrections for on-demand SIB in connected

[R2-2007275](file:///D:/Documents/3GPP/tsg_ran/WG2/TSGR2_111-e/Docs/R2-2007275.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_111-eDocsR2-2007275.zip) Miscellaneous correction regarding on demand SIB in CONNECTED Ericsson CR Rel-16 38.331 16.1.0 1820 - F 5G\_V2X\_NRSL-Core, NR\_pos-Core

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| Company | Agree?  (Yes or No) | Comments |
| Apple | Yes | There is one additonal typo needs tob e fixed in 5.2.2.3.2, the si-periodicity needs to be posSI-periodicity.  2> else if the concerned SI message is configured in the *pos-SchedulingInfoList* and *offsetToSI-Used* is not configured:  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*  3> for the concerned SI message, determine the number *n* which corresponds to the order of entry in the concatenated list;  3> determine the integer value *x = (n – 1) × w*, where *w* is the *si-WindowLength*;  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 *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]; |
| Nokia | Yes | Agree also with Apple comment |

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| Huawei, HiSilicon | No | The first two changes to 5.2.2.3.2 are not quite necessary.  Cannot see a strong motivation to have the 3rd and the 4th change either. By requesting Si message, it is still correct to say that the SIBs are requested. |

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| Samsung |  | 1. Changes in 5.2.2.3.2 are not needed 2. Impact analysis should be updated. EN-DC and NGEN-DC is not impacted by these changes |
| CATT | Yes in principle but few comments | 1. the modification is not necessary in Section 5.2.2.3.2: SI message when the requested SIB(s) on demand are acquired. The requested SIB(s) can be required by on demand or retrieved by broadcast. So no need to add on demand here. 2. There is no definition of posSI message(s). So the modification of posSI message(s) in Section 5.2.2.3.4 is not correct. Prefer to keep the original word “posSIB(s)”. |
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### 2.1.2 Redundant procedural text of on-demand SIB

[R2-2007276](file:///D:/Documents/3GPP/tsg_ran/WG2/TSGR2_111-e/Docs/R2-2007276.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_111-eDocsR2-2007276.zip) Redundant procedural text of on demand SIB in CONNECTED Ericsson CR Rel-16 38.331 16.1.0 1821 - F 5G\_V2X\_NRSL-Core, NR\_pos-Core

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| Company | Agree?  (Yes or No) | Comments |
| Apple | Yes |  |
| Nokia | Yes |  |
| Huawei, HiSilicon | Yes | There do seem to be some duplicate between Clause 5.2.2.3.5 and 5.2.2.4.2 for the SI message reception. With the change in the CR, UE only needs to acquire the SI after SI request in Clause 5.2.2.3.5 |
| Samsung | No | The text was intentionally added (in RAN2 #109) to cover the scenario where UE already has a stored SIB1 in current modification period and SIB acquisition is triggered (e.g. upon initiation of V2X service).  The removal of text (as proposed in CR) would mean that request for on demand SIB can be done only as part of SIB1 processing. This will mandate UE to reacquire SIB1 even if SIB1 is already acquired in the modification period.  To not lose any functionality supported by current specification and also to avoid checking certain conditions twice during SIB1 processing, the text in 5.2.2.4.2 can be updated as follows:  1> if in RRC\_CONNECTED while T311 is not running:  2> disregard the *frequencyBandList*, if received, while in RRC\_CONNECTED;  2> forward the *cellIdentity* to upper layers;  2> forward the *trackingAreaCode* to upper layers;  2> apply the configuration included in the *servingCellConfigCommon*;  2> if the UE has a stored valid version of a SIB, in accordance with sub-clause 5.2.2.2.1, that the UE requires to operate within the cell in accordance with sub-clause 5.2.2.1:  3> use the stored version of the required SIB;  2> else acquire the required SIB(s) as defined in sub-clause 5.2.2.3.5 |
| CATT | No | 1. There is an exception that UE enters section 5.2.2.3.5 directly for on demand SI in connected mode without entering section 5.2.2.4.2 first. 2. Because if there is no common search space to get SIB1, UE won’t enter 5.2.2.4.2 directly when higher layer wants the positioning assistance data on SI message. Instead, UE enters 5.2.2.3.5 directly to require PosSIB(s). 3. So the checking of the si-broadcast status in section 5.2.2.3.5 still makes sense.   So no need to make the corrections. |
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### 2.1.3 Correction to on-demand SI acquisition in RRC\_CONNECTED

[R2-2007077](file:///D:/Documents/3GPP/tsg_ran/WG2/TSGR2_111-e/Docs/R2-2007077.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_111-eDocsR2-2007077.zip) Corrections to on demand SI acquisition in RRC\_CONNECTED Samsung Electronics Co., Ltd CR Rel-16 38.331 16.1.0 1780 - F 5G\_V2X\_NRSL-Core, NR\_pos-Core

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| Company | Agree?  (Yes or No) | Comments |
| Apple | No | If Ericsson CR R2-2007276 is agreed, the change proposed in R2-2007077 is not needed. |

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| Nokia | Yes | But both this and 7276 are not needed. Only one. |
| Huawei, HiSilicon | Yes | The correction is ok but already covered by 7276 |
| Samsung | Yes | See comments on 7276 |

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| CATT | No | 1. The original description makes it possible to try to retrieve the SI message (i.e. entering section 5.2.2.3.2) even if UE can’t request SI by on demand(i.e. entering section 5.2.2.3.6). Perhaps it happens that UE can still retrieve the SI message in section 5.2.2.3.2 just when gNB is broadcasting the required SI message. 2. However UE retrieves the assistance data on SI only when the condition of on demand is met, according to the correction in [R2-2007077](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_111-e\Docs\R2-2007077.zip). 3. So from the positioning service perspective, RRC of UE should try to retrieve the SI for positioning assistance data by on demand in connected mode or other ways when there is SI request from LPP of UE. |
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### 2.1.4 Handling of CPC in fast MCG recovery

[R2-2006934](file:///D:/Documents/3GPP/tsg_ran/WG2/TSGR2_111-e/Docs/R2-2006934.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_111-eDocsR2-2006934.zip) Handling of CPC in fast MCG recovery Intel Corporation CR Rel-16 38.331 16.1.0 1755 - F NR\_Mob\_enh-Core, LTE\_NR\_DC\_CA\_enh-Core

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| Company | Agree?  (Yes or No) | Comments |
| Apple | Yes | A comment on Minor editorial issue:  The sentence below needs tob e ended with a colon :  2> if the *RRCReconfiguration* message was received via SRB3 within *DLInformationTransferMRDC*; |

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| Nokia | No | Issue 1: Yes the procedural combination exists, but that does not mean it will ever happen. 37.340 captures "CPC configuration in HO command, ...is not supported.", and the message in DLInfoTransfer in response to MCGFailureInfo is a HO command. If anything, RRC spec could capture this explicitly, instead of proposed tabular text which only addresses a sub-case.  Issue 2: As a general principle, on SRB3 37.340 captures "SN RRC Reconfiguration Complete messages are mapped to the same SRB as the message initiating the procedure", and this principle is implemented by the current RRC procedure. |
| Intel | Yes | To Nokia, it is also ok to us if in stage 3 specification, we can clarify “The *RRCReconfiguration* message contained in *DLInformationTransferMRDC* includes *ReconfigurationWithSync* if it is used for fast MCG failure recovery.*”* |
| Huawei, HiSilicon | Yes | Coversheet needs to include impact analysis. Otherwise the CR is OK |

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| CATT | No | The CPC may be configured in RRCConfiguration received via SRB3 within DLInformationTransferMRDC if there is a MCG failure recovery just in time. No unpredictable UE action is seen in our view. |
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# Conclusion

In the previous sections we made the following observations:

Based on the discussion in the previous sections we propose the following:

# References

[1]