3GPP TSG-RAN WG2 Meeting #126 [R2-240xxx](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-240xxx.zip)

Fukuoka, Japan May 20th – 24th, 2024

Source: RAN2 Chair (InterDigital)

Title: Agenda

# 1 Opening of the meeting

## 1.1 Call for IPR

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| --- |
| The attention of the delegates of this Working Group is drawn to the fact that **3GPP Individual Members have the obligation** under the IPR Policies of their respective Organizational Partners **to inform their respective Organizational Partners of Essential IPRs** they become aware of.  The delegates were asked to take note that they were hereby invited:   * to investigate whether their organization or any other organization owns IPRs which were, or were likely to become Essential in respect of the work of 3GPP. * to notify their respective Organizational Partners of all potential IPRs, e.g., for ETSI, by means of the IPR Statement and the Licensing declaration forms (https://www.etsi.org/images/files/IPR/etsi-ipr-form.doc) |

NOTE: IPRs may be declared to the Director-General or Chairman of the SDO, but not to the RAN WG2 Chairman.

## 1.2 Network usage conditions

1/ To avoid email system overload, please don’t attach files and documents to emails e.g. for offline email discussions, but instead use files placed on the meeting server instead. Inbox/Drafts folder is used for meeting offline discussions.

## 1.3 Other

|  |
| --- |
| In accordance with the Working Procedures it is reaffirmed that:  (i) compliance with all applicable antitrust and competition laws is required;  (ii) timely submissions of work items in advance of TSG or WG meetings are important to allow for full and fair consideration of such matters; and  (iii) the chair will conduct the meeting with strict impartiality and in the interests of 3GPP |

Note on (i): In case of question please contact your legal counsel.

Note on (ii): WIDs don’t need to be submitted to the RAN2 meeting and will typically not be discussed here either.

# 2 General

## 2.1 Approval of the agenda

[R2-2404101](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404101.zip) Agenda for RAN2#126 Chairlady agenda

=> Revised in [R2-2405855](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405855.zip)

[R2-2405855](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405855.zip) Agenda for RAN2#126 Chairlady agenda

=> The agenda is approved

## 2.2 Approval of the report of the previous meeting

[R2-2404102](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404102.zip) RAN2#125bis Meeting Report MCC report

=> The report is approved

## 2.3 Reporting from other meetings

## 2.4 Instructions

CRs

* Use latest CR template version 12.3 for all CRs submitted to RAN2 meeting

Rel-17 maintenance CRs

* Only essential/critical corrections are expected
* Editorial and clarification corrections should be sent to be reviewed and approved by spec rapporteurs prior to submission.
* Editorials corrections should be collected and submitted by spec rapporteurs.

Rel-18 CR Handling

- CR editors / Rapporteurs continue to support maintenance related to their respective CR / WI and are required to follow drafting rules

- Single correction CR per spec coordinated by CR editor/rapporteurs will be agreed per feature for RAN#104

- CR editors / Rapporteurs are to gather miscellaneous and non-controversial issues, if any, for their respective specification prior to submission deadline. Other companies are expected to give inputs to these CRs and not have contributions on such issues.

- Companies should give inputs on editorials and clarifications to the CR editors/rapporteurs and not have individual CRs/contributions on such issues. Emails to CR editors/rapporteurs should follow the following naming convention when sending emails to rapporteurs:

[Pre\_RAN2#126][CR xx.yyy] Clarification CRs

- The organizational AIs for each WIs are reserved for rapporteurs only. CR rapporteurs are expected to submit only 1 CR per spec.

- For RRC corrections, only selected RIL can be submitted in the agenda (i.e. only if RRC editor suggests to discuss the RIL under this agenda)

- Companies are expected to submit Tdocs with TP (not CRs). More specifically, the Tdoc should contain description of open issues/proposal and the proposed corrections/TP in the contribution itself. Small issues can be included in the tdoc with just short justification, same level of detail as in cover sheet.

- RRC ASN.1 changes can be drafted in a NBC way until ASN.1 is frozen, to avoid unnecessary RRC overhead. The focus should be on drafting the changes in the best possible way.

- Inter-op analysis on Rel-18 CR coverpages in NOT needed

Remaining/updated Rel-18 RRC parameters and MAC CEs

- RRC parameters updates/corrections, including those requested by other groups, e.g. RAN1, are covered by WI-specific RRC CRs.

- MAC CE parameters updates/corrections, including those requested by other groups, e.g. RAN1, are covered by WI-specific MAC CRs

Rel-18 UE capabilities

- EUTRA UE capabilities corrections are covered by separate CRs

- NR UE capabilities (new) and corrections are covered in Rel-18 common MegaCRs (38306 and 38331) covering all rel-18 WIs (end outcome).

- UE capabilities in LPP 37355 and SLPP 38355 are covered in the main CRs for the Positioning WI.

During the work on NR UE caps:

- In a Common Rel-18 Agenda Item (AI): RAN1 and RAN4 feature corrections are handled jointly under a common AI, with some explicit exceptions. Running UE cap MegaCRs are maintained for the parts handled in the common AI.

- In WI-specific Rel-18 Agenda Items: RAN2 features/corrections are handled per WI and only a draft CR per WI is expected and will be merged with the running mega CR

**ASN.1 Review**

- Please follow the instructions provided in ASN.1 review rapporteur and read section “Review execution” on what to expect for paper submission.

<https://www.3gpp.org/ftp/Email_Discussions/RAN2/%5BMisc%5D/ASN1%20review/Rel-18%202024-03>

* Contributions on WI specific RILs should be submitted under the corresponding WI specific AI and NOT in the general ASN.1 review AI (7.0.3). That AI is reserved for common/cross-WI specific identified RILs
* Title of contribution should start with [RIL number] Title, or "[RIL number1][RIL number N] Title” if there are more than one RIL in a Tdoc.
* Proposals related to RIL resolution should include RIL number in the proposal

**ASN.1 Review deadlines**

* ANS.1 review final deadline: May 3rd
* RIL resolution proposals from CR rapporteurs: May 7th
* Tdoc reservation and submission: May 10th same as normal Tdoc deadline
* IMPORTANT: Please follow the guidelines in the “review execution” for resolving RIL issues. Companies are expected to coordinate with other companies and WI CR rapporteurs on ASN.1 issues identified, either postponed from last meeting or newly identified.

<https://www.3gpp.org/ftp/Email_Discussions/RAN2/%5BMisc%5D/ASN1%20review/Rel-18%202024-03>

Tdoc limitations

Tdoc limitations doesn’t apply to Rapporteur Input, i.e.

- Assigned summary rapporteur input of the summary.

- Email / offline discussions outcomes by discussion rapporteur,

- WI rapporteurs input for WI planning etc,

- TS rapporteur input for TS maintenance.

- Contact Company of a LSin that triggers RAN2 action may submit one tdoc to facilitate the LS reply. This only applies to one of the contact companies in case there are several (default the first).

- Spec rapporteur list of open issues for Rel-18 items

Tdoc limitations doesn’t apply to Input created at the meeting, revisions, assigned documents etc.

Tdoc limitations doesn’t apply to shadow / mirror CRs (Cat A), or In-Principle Agreed CRs.

Tdoc limitations doesn’t apply to Tdocs related to RILs which has been assigned during ASN.1 review. **Single Tdoc containing 1 or more RIL resolutions per WI is expected**.

Tdoc limitations applies to all other submitted tdocs (e.g. discussion tdoc and CR tdoc are counted as two).

Tdoc request/submission for RAN2#126 deadlines:

* Tdoc Submission deadline: May 10th, 2024 1000 UTC

## 2.5 Others

[R2-2404103](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404103.zip) RAN2 Handbook MCC discussion

# 3 Incoming liaisons

Note: LSs are moved to the respective agenda items if any.

# 4 EUTRA Rel-17 and earlier

Only essential corrections. No documents should be submitted to 4. Please submit to 4.x

## 4.1 EUTRA corrections Rel-17 and earlier

(NB\_IOTenh4\_LTE\_eMTC6-Core; leading WG: RAN1; REL-17; WID: [RP-211340](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_92e/Docs/RP-211340.zip))

(UPIP\_EN-DC\_UE; leading WG: RAN3; REL-17; WID: [RP‑213669](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_94e/Docs/RP-213669.zip))

(LTE TEI17)

Essential corrections to LTE Rel-17 topics not covered by other agenda items.

(NB\_IOTenh3-Core; leading WG: RAN1; REL-16; started: Jun 18; Completed: June 20; WID: [RP-200293](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_87e/Docs/RP-200293.zip)); REL-15 and Earlier NB-IoT WIs are in scope but not listed explicitly (long list).

(LTE\_eMTC5-Core; LTE\_eMTC5-Core; leading WG: RAN1; REL-16; started: Jun 18; Completed: June 20; WID: [RP-192875](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_86/Docs/RP-192875.zip);), REL-15 and Earlier eMTC WIs are in scope but not listed explicitly (long list).

(LTE\_feMob-Core; leading WG: RAN2; REL-16; started: Jun 18; Completed: June 20; WID: [RP-190921](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_84/Docs/RP-190921.zip));

(LTE\_terr\_bcast-Core, LTE\_DL\_MIMO\_EE-Core, LTE\_high\_speed\_enh2-Core; LTE TEI16 Non-positioning);

(LTE\_NBIOT\_eMTC\_NTN; leading WG: RAN1; REL-17; WID: [RP-211601](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_92e/Docs/RP-211601.zip))

REL-15 and Earlier EUTRA WIs are in scope but not listed explicitly (long list), Except V2X and Sidelink WIs and Positioning WIs, which are addressed by AIs below.

NOTE that LTE corrections related to NR WIs or Joint NR LTE WIs should be submitted to NR AIs below.

NOTE that LTE corrections which are the same as an NR correction should be submitted to the respective NR AI (so the NR CR and LTE CR can be treated together).

This Agenda Item is treated in the Maintenance Breakout session (Corrections for LTE\_NBIOT\_eMTC\_NTN might be treated in the NTN breakout session)

### 4.1.0 In-principle agreed CRs

### 4.1.1 Other

[R2-2404516](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404516.zip) Further corrections to RRCConnectionResume in LTE RRC Lenovo discussion Rel-14 TEI14

[R2-2405120](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405120.zip) Adding definition of earth-moving cell for IoT NTN Huawei, HiSilicon, ZTE Corporation, Sanechips, Nokia, Nokia Shanghai Bell, CATT, Intel Corporation CR Rel-17 36.331 17.8.0 5019 - F LTE\_NBIOT\_eMTC\_NTN

[R2-2405121](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405121.zip) Adding definition of earth-moving cell for IoT NTN Huawei, HiSilicon, ZTE Corporation, Sanechips, Nokia, Nokia Shanghai Bell, CATT, Intel Corporation CR Rel-18 36.331 18.1.0 5020 - A LTE\_NBIOT\_eMTC\_NTN

[R2-2405397](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405397.zip) Miscellaneous Corrections for TS 36.331 Samsung, Qualcomm CR Rel-14 36.331 14.16.0 5023 - F TEI14, TEI10

[R2-2405398](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405398.zip) Miscellaneous Corrections for TS 36.331 Samsung, Qualcomm CR Rel-15 36.331 15.21.0 5024 - F TEI14, TEI10, LTE\_NBIOT\_eMTC\_NTN

[R2-2405399](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405399.zip) Miscellaneous Corrections for TS 36.331 Samsung, Qualcomm CR Rel-16 36.331 16.15.0 5025 - A TEI14, TEI10, LTE\_NBIOT\_eMTC\_NTN

[R2-2405400](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405400.zip) Miscellaneous Corrections for TS 36.331 Samsung, Qualcomm CR Rel-17 36.331 17.8.0 5026 - F TEI14, TEI10, LTE\_NBIOT\_eMTC\_NTN, TEI17, NR\_ext\_to\_71GHz-Core

[R2-2405401](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405401.zip) Miscellaneous Corrections for TS 36.331 Samsung, Qualcomm CR Rel-18 36.331 18.1.0 5027 - F TEI14, LTE\_NBIOT\_eMTC\_NTN, TEI10, TEI17, NR\_ext\_to\_71GHz-Core, NR\_mobile\_IAB-Core

## 4.2 Void

## 4.3 V2X and Sidelink corrections Rel-15 and earlier

REL-15 and Earlier WIs related to V2x and Sidelink are in scope but not listed explicitly (long list).

This Agenda Item is treated in the V2X and Sidelink Breakout session

Tdoc Limitation: 1 tdocs

[R2-2405433](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2405433.zip) Correction on transmission of SidelinkUEInformation Philips International B.V. CR Rel-13 36.331 13.17.0 5028 - F LTE\_eD2D\_Prox-Core

[R2-2405434](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405434.zip) Correction on transmission of SidelinkUEInformation Philips International B.V. CR Rel-14 36.331 14.16.0 5029 - A LTE\_eD2D\_Prox-Core

[R2-2405435](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405435.zip) Correction on transmission of SidelinkUEInformation Philips International B.V. CR Rel-15 36.331 15.21.0 5030 - A LTE\_eD2D\_Prox-Core

[R2-2405436](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405436.zip) Correction on transmission of SidelinkUEInformation Philips International B.V. CR Rel-16 36.331 16.15.0 5031 - A LTE\_eD2D\_Prox-Core

[R2-2405437](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405437.zip) Correction on transmission of SidelinkUEInformation Philips International B.V. CR Rel-17 36.331 17.8.0 5032 - A LTE\_eD2D\_Prox-Core

[R2-2405438](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405438.zip) Correction on transmission of SidelinkUEInformation Philips International B.V. CR Rel-18 36.331 18.1.0 5033 - A LTE\_eD2D\_Prox-Core

## 4.4 Positioning corrections Rel-16 and earlier

(LTE\_NavIC-Core, LTE TEI16 Positioning), REL-15 and Earlier WIs related to positioning are in scope but not listed explicitly (long list).

This Agenda Item will be handled by email.

Tdoc Limitation: 1 tdoc

[R2-2404749](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404749.zip) Correction to mandatory 80ms scheduling offset for positioning SI acquisition Huawei, HiSilicon, Ericsson CR Rel-15 36.306 15.11.0 1885 - F LCS\_LTE\_acc\_enh-Core

[R2-2404750](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404750.zip) Correction to mandatory 80ms scheduling offset for positioning SI acquisition Huawei, HiSilicon, Ericsson CR Rel-16 36.306 16.12.0 1886 - A LCS\_LTE\_acc\_enh-Core

[R2-2404751](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404751.zip) Correction to mandatory 80ms scheduling offset for positioning SI acquisition Huawei, HiSilicon, Ericsson CR Rel-17 36.306 17.6.0 1887 - A LCS\_LTE\_acc\_enh-Core

[R2-2404752](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404752.zip) Correction to mandatory 80ms scheduling offset for positioning SI acquisition Huawei, HiSilicon, Ericsson CR Rel-18 36.306 18.1.0 1888 - A LCS\_LTE\_acc\_enh-Core

# 5 NR Rel-15 and Rel-16

Essential corrections only.

Tdoc Limitation: 2 tdocs in total for all sub agenda items NOTE: some agenda items have additional Tdoc limits.

In case a correction need to be reflected in both NR TS and LTE TS, the corrections should be submitted under one single AI (so the NR and LTE correction can be treatee together), the sub-Ais below this

## 5.1 Common

Includes the following WIs and input that doesn’t fit elsewhere.

(NR\_newRAT-Core; leading WG: RAN1; REL-15; started: Mar. 17; closed: Jun. 19: WID: [RP-191971](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_85/Docs/RP-191971.zip))

(NR\_IAB-Core; leading WG: RAN2; REL-16; started: Dec 18; target Aug 20; WID: [RP-200840](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_88e/Docs/RP-200840.zip))

(NR\_unlic-Core; leading WG: RAN1; REL-16; started: Dec 18; Closed June 20; WID: [RP-192926](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_86/Docs/RP-192926.zip)).

(NR\_IIOT-Core; leading WG: RAN2; REL-16; started: Mar 19; Completed: Jun 20; WID: [RP-200797](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_88e/Docs/RP-200797.zip))

(NR\_UE\_pow\_sav-Core; leading WG: RAN1; REL-16; started: Mar 19; Completed Jun 20; WID: [RP-200494](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_87e/Docs/RP-200494.zip)).

(NR\_2step\_RACH-Core; leading WG: RAN1; REL-16; started: Dec 18; Completed: June 20; WID: [RP-200085](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_87e/Docs/RP-200085.zip)).

(SRVCC\_NR\_to\_UMTS-Core; leading WG: RAN2; REL-16; started: Dec 18; Completed; Mar 20; WID: [RP-190713](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_83/Docs/RP-190713.zip))

(RACS-RAN-Core, leading WG: RAN2; REL-16; started: Mar 19; completed: Jun 20; WID: [RP-191088](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_84/Docs/RP-191088.zip))

(NG\_RAN\_PRN-Core; leading WG: RAN3; REL-16; started: Mar 19; completed: June 20; WID: [RP-200122](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_87e/Docs/RP-200122.zip))

(NR\_eMIMO-Core, leading WG: RAN1; REL-16; started: Jun 18; target; Aug 20; WID: [RP-200474😉](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_87e/Docs/RP-200474.zip)

(NR\_CLI\_RIM; leading WG: RAN1; REL-16; started: Dec 18; Completed: Jun 20; WID: [RP-191997](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_85/Docs/RP-191997.zip);)

(NR\_L1enh\_URLLC-Core, leading WG: RAN1; REL-16; Completed: June 20; WID: [RP-191584](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_84/Docs/RP-191584.zip))

(LTE\_NR\_DC\_CA\_enh-Core; leading WG: RAN2; REL-16; started: Jun 18; Target Aug 20; WI [RP-200791](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_88e/Docs/RP-200791.zip))

(NR\_Mob\_enh-Core; leading WG: RAN2; REL-16; started: Jun 18; Completed June 20; WID: [RP-192277](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_85/Docs/RP-192277.zip)).

(NR\_SON\_MDT-Core; leading WG: RAN3; REL-16; started: Jun 19; Completed June 20; WID: [RP-191776](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_85/Docs/RP-191776.zip))

(NR\_HST, NR\_RRM\_enh-Core, NR\_RF\_FR1, NR\_RF\_FR2\_req\_enh, NR\_n66\_BW, LTE\_NR\_B41\_Bn41\_PC29dBm-Core, NR\_CSIRS\_L3meas,)

(NR TEI16)

LTE mob enh corrections that are common with NR mobility enhancements should be submitted to this AI.

### 5.1.1 Stage 2 and Organisational

Incoming LSs, etc. You should discuss your stage 2 CRs with the specification rapporteurs before submission. Includes impact to 38.300, 36.300, 37.340

[R2-2404124](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404124.zip) Reply LS on combination of HST and RRM relaxation (R4-2403532; contact: Apple) RAN4 LS in Rel-16 NR\_HST, NR\_UE\_pow\_sav-Core To:RAN2

[R2-2404133](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404133.zip) LS on 5GS missing CBC support for shared networks (S2-2405210; contact: Ericsson) SA2 LS in Rel-15 5GS\_Ph1 To:CT1 Cc:RAN2, RAN3, SA1

#### 5.1.1.0 In-principle agreed CRs

[R2-2404360](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404360.zip) Correction to UE capability description for fallback BC behavior Ericsson, Nokia (Rapporteur) CR Rel-15 38.300 15.16.0 0843 1 F NR\_newRAT-Core [R2-2403004](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403004.zip)

=> Revised in [R2-2405727](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405727.zip)

[R2-2405727](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405727.zip) Correction to UE capability description for fallback BC behavior Ericsson, Nokia (Rapporteur) CR Rel-15 38.300 15.16.0 0843 2 F NR\_newRAT-Core

[R2-2404361](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404361.zip) Correction to UE capability description for fallback BC behavior Ericsson, Nokia (Rapporteur) CR Rel-16 38.300 16.15.0 0844 1 A NR\_newRAT-Core [R2-2403005](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403005.zip)

=> Revised in [R2-2405728](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405728.zip)

[R2-2405728](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405728.zip) Correction to UE capability description for fallback BC behavior Ericsson, Nokia (Rapporteur) CR Rel-16 38.300 16.15.0 0844 2 A NR\_newRAT-Core

[R2-2404362](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404362.zip) Correction to UE capability description for fallback BC behavior Ericsson, Nokia (Rapporteur) CR Rel-17 38.300 17.8.0 0845 1 A NR\_newRAT-Core [R2-2403006](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403006.zip)

=> Revised in [R2-2405729](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405729.zip)

[R2-2405729](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405729.zip) Correction to UE capability description for fallback BC behavior Ericsson, Nokia (Rapporteur) CR Rel-17 38.300 17.8.0 0845 2 A NR\_newRAT-Core

[R2-2404363](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404363.zip) Correction to UE capability description for fallback BC behavior Ericsson, Nokia (Rapporteur) CR Rel-18 38.300 18.1.0 0846 1 A NR\_newRAT-Core [R2-2403007](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403007.zip)

=> Revised in [R2-2405730](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405730.zip)

[R2-2405730](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405730.zip) Correction to UE capability description for fallback BC behavior Ericsson, Nokia (Rapporteur) CR Rel-18 38.300 18.1.0 0846 2 A NR\_newRAT-Core

[R2-2404670](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404670.zip) Clarification on the combination of HST and RRM measurement relaxation Apple, Ericsson, Nokia (Rapporteur) CR Rel-16 38.300 16.15.0 0839 1 F NR\_HST, NR\_UE\_pow\_sav-Core [R2-2402869](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402869.zip)

[R2-2404671](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404671.zip) Clarification on the combination of HST and RRM measurement relaxation Apple, Ericsson, Nokia (Rapporteur) CR Rel-17 38.300 17.8.0 0840 1 A NR\_HST, NR\_UE\_pow\_sav-Core [R2-2402870](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402870.zip) Revised

[R2-2404672](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404672.zip) Clarification on the combination of HST and RRM measurement relaxation Apple, Ericsson, Nokia (Rapporteur) CR Rel-18 38.300 18.1.0 0841 1 A NR\_HST, NR\_UE\_pow\_sav-Core [R2-2402871](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402871.zip) Revised

[R2-2405624](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405624.zip) Clarification on the combination of HST and RRM measurement relaxation Apple, Ericsson, Nokia (Rapporteur) CR Rel-17 38.300 17.8.0 0840 2 A NR\_UE\_pow\_sav-Core, NR\_HST [R2-2404671](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404671.zip)

[R2-2405625](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405625.zip) Clarification on the combination of HST and RRM measurement relaxation Apple, Ericsson, Nokia (Rapporteur) CR Rel-18 38.300 18.1.0 0841 2 A NR\_UE\_pow\_sav-Core, NR\_HST [R2-2404672](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404672.zip)

#### 5.1.1.1 Other

### 5.1.2 User Plane corrections

#### 5.1.2.0 In Principle Agreed CRs

#### 5.1.2.1 MAC

User Plane corrections will be handled in the User Plane break out session

[R2-2405414](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405414.zip) Clarification on CG re-initialization upon SCell activation ASUSTeK CR Rel-16 38.321 16.15.0 1862 - F LTE\_NR\_DC\_CA\_enh-Core, TEI16

- LG thinks that there is no need for CR. Qualcomm thinks intention is right but the CR is not need

=> The CR is not pursued

[R2-2405415](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405415.zip) Clarification on CG re-initialization upon SCell activation ASUSTeK CR Rel-17 38.321 17.8.0 1863 - A LTE\_NR\_DC\_CA\_enh-Core, TEI16

[R2-2405416](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405416.zip) Clarification on CG re-initialization upon SCell activation ASUSTeK CR Rel-18 38.321 18.1.0 1864 - A LTE\_NR\_DC\_CA\_enh-Core, TEI16

[R2-2405417](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405417.zip) DRX timer handling regarding dormant BWP and SCell deactivation ASUSTeK CR Rel-16 38.321 16.15.0 1865 - F LTE\_NR\_DC\_CA\_enh-Core, TEI16

- LG doesn’t think this is needed. Huawei, Oppo, Nokia and Samsung doesn’t support this change. Samsung thinks that the only case is the carrier aggregation scenario and this is changing the legacy. Nokia thinks that this is a NBC change.

=> the CR is not pursued

[R2-2405418](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405418.zip) DRX timer handling regarding dormant BWP and SCell deactivation ASUSTeK CR Rel-17 38.321 17.8.0 1866 - A LTE\_NR\_DC\_CA\_enh-Core, TEI16

[R2-2405419](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405419.zip) DRX timer handling regarding dormant BWP and SCell deactivation ASUSTeK CR Rel-18 38.321 18.1.0 1867 - A LTE\_NR\_DC\_CA\_enh-Core, TEI16

#### 5.1.2.2 RLC PDCP SDAP BAP

#### 5.1.2.3 Other

User plane related corrections that should be handled in User plane break out session.

### 5.1.3 Control Plane corrections

#### 5.1.3.0 In-principle agreed CRs

[R2-2404962](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404962.zip) Dummy the rrc-TransactionIdentifier field from IABOtherInformation Ericsson CR Rel-16 38.331 16.16.0 4702 1 F NR\_IAB-Core [R2-2403171](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403171.zip)

[R2-2404963](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404963.zip) Dummy the rrc-TransactionIdentifier field from IABOtherInformation Ericsson CR Rel-17 38.331 17.8.0 4703 1 A NR\_IAB-Core [R2-2403172](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403172.zip)

[R2-2404964](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404964.zip) Dummy the rrc-TransactionIdentifier field from IABOtherInformation Ericsson CR Rel-18 38.331 18.1.0 4704 1 A NR\_IAB-Core [R2-2403173](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403173.zip)

#### 5.1.3.1 NR RRC

Corrections to 38331, and related change to other TS if applicable, e.g. 36331, Stage-2 etc.

[R2-2404465](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404465.zip) Clarification of configured grant in shared spectrum Xiaomi CR Rel-16 38.331 16.16.0 4778 - F NR\_unlic-Core

[R2-2404466](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404466.zip) Clarification of configured grant in shared spectrum Xiaomi, OPPO CR Rel-17 38.331 17.8.0 4779 - A NR\_unlic-Core

[R2-2404467](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404467.zip) Clarification of configured grant in shared spectrum Xiaomi, OPPO CR Rel-18 38.331 18.1.0 4780 - A NR\_unlic-Core

[R2-2405009](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405009.zip) Clarification on UE capability reporting for UTRA-FDD MediaTek Inc. CR Rel-16 38.331 16.16.0 4804 - F SRVCC\_NR\_to\_UMTS-Core

=> Revised in [R2-2405724](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405724.zip)

[R2-2405724](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405724.zip) Clarification on UE capability reporting for UTRA-FDD MediaTek Inc. CR Rel-16 38.331 16.16.0 4804 1 F SRVCC\_NR\_to\_UMTS-Core

[R2-2405010](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405010.zip) Clarification on UE capability reporting for UTRA-FDD MediaTek Inc. CR Rel-17 38.331 17.8.0 4805 - A SRVCC\_NR\_to\_UMTS-Core

=> Revised in [R2-2405725](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405725.zip)

[R2-2405725](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405725.zip) Clarification on UE capability reporting for UTRA-FDD MediaTek Inc. CR Rel-17 38.331 17.8.0 4805 1 A SRVCC\_NR\_to\_UMTS-Core

[R2-2405011](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405011.zip) Clarification on UE capability reporting for UTRA-FDD MediaTek Inc. CR Rel-18 38.331 18.1.0 4806 - A SRVCC\_NR\_to\_UMTS-Core

=> Revised in [R2-2405726](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405726.zip)

[R2-2405726](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405726.zip) Clarification on UE capability reporting for UTRA-FDD MediaTek Inc. CR Rel-18 38.331 18.1.0 4806 1 A SRVCC\_NR\_to\_UMTS-Core

[R2-2405175](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405175.zip) Clarification on SIB1 reception for ETWS/CMAS Samsung, Ericsson CR Rel-15 38.331 15.25.0 4817 - F NR\_newRAT-Core

[R2-2405176](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405176.zip) Clarification on SIB1 reception for ETWS/CMAS Samsung, Ericsson CR Rel-16 38.331 16.16.0 4818 - A NR\_newRAT-Core

[R2-2405177](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405177.zip) Clarification on SIB1 reception for ETWS/CMAS Samsung, Ericsson CR Rel-17 38.331 17.8.0 4819 - A NR\_newRAT-Core

[R2-2405178](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405178.zip) Clarification on SIB1 reception for ETWS/CMAS Samsung, Ericsson CR Rel-18 38.331 18.1.0 4820 - A NR\_newRAT-Core

[R2-2405393](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405393.zip) Discussion on Applying Security Algorithm in EN-DC Samsung discussion Rel-15

[R2-2405675](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405675.zip) Clarification on when to include the rrc-TransactionIdentifier Ericsson CR Rel-15 38.331 15.25.0 4852 - F NR\_newRAT-Core

[R2-2405676](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405676.zip) Clarification on when to include the rrc-TransactionIdentifier Ericsson CR Rel-16 38.331 16.16.0 4853 - A NR\_newRAT-Core

[R2-2405677](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405677.zip) Clarification on when to include the rrc-TransactionIdentifier Ericsson CR Rel-17 38.331 17.8.0 4854 - A NR\_newRAT-Core

[R2-2405678](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405678.zip) Clarification on when to include the rrc-TransactionIdentifier Ericsson CR Rel-18 38.331 18.1.0 4855 - A NR\_newRAT-Core

#### 5.1.3.2 UE capabilities

UE cap corrections 38306, 38331

[R2-2404450](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404450.zip) Correction to mandatory supported capability of channel bandwidth CAICT CR Rel-15 38.306 15.24.0 1092 - F NR\_newRAT-Core

[R2-2404451](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404451.zip) Correction to mandatory supported capability of channel bandwidth CAICT CR Rel-16 38.306 16.16.0 1093 - A NR\_newRAT-Core Late

[R2-2404452](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404452.zip) Correction to mandatory supported capability of channel bandwidth CAICT CR Rel-17 38.306 17.8.0 1094 - A NR\_newRAT-Core Late

[R2-2404453](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404453.zip) Correction to mandatory supported capability of channel bandwidth CAICT CR Rel-18 38.306 18.1.0 1095 - A NR\_newRAT-Core Late

[R2-2404529](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404529.zip) Miscellaneous non-controversial rapporteur corrections Intel Corporation CR Rel-16 38.306 16.16.0 1096 - F NR\_newRAT-Core, NR\_eMIMO-Core, NR\_unlic-Perf, 5G\_V2X\_NRSL-Core

[R2-2404701](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404701.zip) Discussion on UE capabilities for two PUCCH groups Qualcomm Incorporated, Ericsson, ZTE Corporation, Sanechips discussion Rel-15 NR\_newRAT-Core

[R2-2404702](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404702.zip) Correction on prerequisite feature for csi-ReportingCrossPUCCH-Grp-r16 Qualcomm Incorporated CR Rel-16 38.306 16.16.0 1018 2 F TEI16 [R2-2402956](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402956.zip)

[R2-2404703](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404703.zip) Correction on prerequisite feature for csi-ReportingCrossPUCCH-Grp-r16 Qualcomm Incorporated CR Rel-17 38.306 17.8.0 1019 2 A TEI16 [R2-2402957](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402957.zip)

[R2-2404704](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404704.zip) Correction on prerequisite feature for csi-ReportingCrossPUCCH-Grp-r16 Qualcomm Incorporated CR Rel-18 38.306 18.1.0 1020 2 A TEI16 [R2-2402958](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402958.zip)

[R2-2404724](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404724.zip) Clarification on the SRS Carrier Switching for the PUSCH-less Cell (r15) ZTE Corporation, Sanechips, Ericsson, Samsung CR Rel-15 38.306 15.24.0 1100 - F NR\_newRAT-Core

[R2-2404725](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404725.zip) Clarification on the SRS Carrier Switching for the PUSCH-less Cell (r16) ZTE Corporation, Sanechips, Ericsson, Samsung CR Rel-16 38.306 16.16.0 1101 - A NR\_newRAT-Core

[R2-2404726](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404726.zip) Clarification on the SRS Carrier Switching for the PUSCH-less Cell (r17) ZTE Corporation, Sanechips, Ericsson, Samsung CR Rel-17 38.306 17.8.0 1102 - A NR\_newRAT-Core

[R2-2404727](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404727.zip) Clarification on the SRS Carrier Switching for the PUSCH-less Cell (r18) ZTE Corporation, Sanechips, Ericsson, Samsung CR Rel-18 38.306 18.1.0 1103 - A NR\_newRAT-Core

[R2-2404728](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404728.zip) Clarification on the parallel Tx Capability (r15) ZTE Corporation, Sanechips, Ericsson CR Rel-15 38.306 15.24.0 1104 - F NR\_newRAT-Core

[R2-2404729](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404729.zip) Clarification on the parallel Tx Capability (R16) ZTE Corporation, Sanechips, Ericsson CR Rel-16 38.306 16.16.0 1105 - A NR\_newRAT-Core, NR\_2step\_RACH

=> Revied in [R2-2405709](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405709.zip)

[R2-2405709](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405709.zip) Clarification on the parallel Tx Capability (R16) ZTE Corporation, Sanechips, Ericsson CR Rel-16 38.306 16.16.0 1105 1 A NR\_newRAT-Core, NR\_2step\_RACH

[R2-2404730](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404730.zip) Clarification on the parallel Tx Capability (R17) ZTE Corporation, Sanechips, Ericsson CR Rel-17 38.306 17.8.0 1106 - A TEI17, NR\_newRAT-Core, NR\_2step\_RACH, NR\_IIOT\_URLLC\_enh

=> Revied in [R2-2405710](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405710.zip)

[R2-2405710](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405710.zip) Clarification on the parallel Tx Capability (R17) ZTE Corporation, Sanechips, Ericsson CR Rel-17 38.306 17.8.0 1106 1 A TEI17, NR\_newRAT-Core, NR\_2step\_RACH, NR\_IIOT\_URLLC\_enh

[R2-2404731](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404731.zip) Clarification on the parallel Tx Capability (R18) ZTE Corporation, Sanechips, Ericsson CR Rel-18 38.306 18.1.0 1107 - A TEI17, NR\_newRAT-Core, NR\_2step\_RACH, NR\_IIOT\_URLLC\_enh

=> Revied in [R2-2405711](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405711.zip)

[R2-2405711](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405711.zip) Clarification on the parallel Tx Capability (R18) ZTE Corporation, Sanechips, Ericsson CR Rel-18 38.306 18.1.0 1107 1 A TEI17, NR\_newRAT-Core, NR\_2step\_RACH, NR\_IIOT\_URLLC\_enh

[R2-2405505](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405505.zip) Clarification on xDD differentiation for SDL bands Huawei, HiSilicon CR Rel-15 38.306 15.24.0 1116 - F NR\_newRAT-Core

[R2-2405506](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405506.zip) Clarification on xDD differentiation for SDL bands Huawei, HiSilicon CR Rel-16 38.306 16.16.0 1117 - A NR\_newRAT-Core

[R2-2405507](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405507.zip) Clarification on xDD differentiation for SDL bands Huawei, HiSilicon CR Rel-17 38.306 17.8.0 1118 - A NR\_newRAT-Core

[R2-2405508](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405508.zip) Clarification on xDD differentiation for SDL bands Huawei, HiSilicon CR Rel-18 38.306 18.1.0 1119 - A NR\_newRAT-Core

#### 5.1.3.3 Other

This agenda item addresses the idle and inactive behaviour specified in 38.304 or 36.304, LTE-specific changes for the applicable WIs, Other parts not covered elsewhere.

## 5.2 NR V2X

(5G\_V2X\_NRSL-Core; leading WG: RAN1; REL-16; started: Mar 19; target; Aug 20; WID: [RP-200129](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_87e/Docs/RP-200129.zip)).

CR rapporteurs will take care of miscellaneous CRs to collect small changes. Please contact / coordinate with CR rapporteur company first for small changes (e.g. non-controversial clarification/correction, editorial correction, etc.).

Tdoc Limitation: 1 tdocs

[R2-2404491](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404491.zip) Correction to RRC for SL configured grant Ericsson CR Rel-16 38.331 16.16.0 4782 - F 5G\_V2X\_NRSL-Core

=> Withdrawn

[R2-2404492](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404492.zip) Correction to RRC for SL configured grant Ericsson CR Rel-17 38.331 17.8.0 4783 - A 5G\_V2X\_NRSL-Core

=> Withdrawn

[R2-2404493](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404493.zip) Correction to RRC for SL configured grant Ericsson CR Rel-18 38.331 18.1.0 4784 - A 5G\_V2X\_NRSL-Core

=> Withdrawn

[R2-2405346](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405346.zip) Corrections for SL RLC mode indication ZTE, Sanechips CR Rel-16 38.331 16.16.0 4825 - F 5G\_V2X\_NRSL-Core

[R2-2405347](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405347.zip) Corrections for SL RLC mode indication ZTE, Sanechips CR Rel-17 38.331 17.8.0 4826 - A 5G\_V2X\_NRSL-Core

[R2-2405348](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405348.zip) Corrections for SL RLC mode indication ZTE, Sanechips CR Rel-18 38.331 18.1.0 4827 - A 5G\_V2X\_NRSL-Core

## 5.3 NR Positioning Support

(NR\_newRAT-Core; leading WG: RAN1; REL-15; started: Mar. 17; closed: Jun. 19: WID: [RP-191971](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_85/Docs/RP-191971.zip))

(NR\_pos-Core; leading WG: RAN1; REL-16; started: Mar 19; target; Jun 20; WID: [RP-200218](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_87e/Docs/RP-200218.zip)).

(NR TEI16 Positioning)

Stage 2 corrections shall be discussed with the specification rapporteur (Sven Fischer sfischer@qti.qualcomm.com) before submission. Stage 2 CRs not discussed with the specification rapporteur will not be treated.

Tdoc Limitation: 1 tdoc

[R2-2404753](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404753.zip) Correction to Positioning SRS Configuration Huawei, HiSilicon CR Rel-16 38.331 16.16.0 4791 - F NR\_pos-Core

[R2-2404754](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404754.zip) Correction to Positioning SRS configuration Huawei, HiSilicon CR Rel-17 38.331 17.8.0 4792 - A NR\_pos-Core

[R2-2404755](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404755.zip) Correction to Positioning SRS configuration Huawei, HiSilicon CR Rel-18 38.331 18.1.0 4793 - A NR\_pos-Core

[R2-2405104](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405104.zip) Corrections on the prerequisite feature groups of NR-Multi-RTT-MeasurementCapability Xiaomi CR Rel-16 37.355 16.13.0 0505 - F NR\_pos-Core

[R2-2405105](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405105.zip) Corrections on the prerequisite feature groups of NR-Multi-RTT-MeasurementCapability Xiaomi CR Rel-17 37.355 17.8.0 0506 - A NR\_pos-Core

[R2-2405106](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405106.zip) Corrections on the prerequisite feature groups of NR-Multi-RTT-MeasurementCapability Xiaomi CR Rel-18 37.355 18.1.0 0507 - A NR\_pos-Core

[R2-2405250](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405250.zip) Missing Conditionally mandatory features without UE radio access capability parameters for 80ms scheduling offset for positioning SI acquisition Ericsson CR Rel-18 38.306 18.1.0 1086 2 A NR\_pos-Core [R2-2403799](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403799.zip)

=> Revised in [R2-2405852](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405852.zip)

[R2-2405852](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405852.zip) Missing Conditionally mandatory features without UE radio access capability parameters for 80ms scheduling offset for positioning SI acquisition Ericsson CR Rel-18 38.306 18.1.0 1086 3 A NR\_pos-Core

[R2-2405251](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405251.zip) Missing Conditionally mandatory features without UE radio access capability parameters for 80ms scheduling offset for positioning SI acquisition Ericsson CR Rel-17 38.306 17.8.0 1088 2 A NR\_pos-Core [R2-2403798](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403798.zip)

=> Revised in [R2-2405853](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405853.zip)

[R2-2405853](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405853.zip) Missing Conditionally mandatory features without UE radio access capability parameters for 80ms scheduling offset for positioning SI acquisition Ericsson CR Rel-17 38.306 17.8.0 1088 3 A NR\_pos-Core

[R2-2405252](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405252.zip) Missing Conditionally mandatory features without UE radio access capability parameters for 80ms scheduling offset for positioning SI acquisition Ericsson CR Rel-16 38.306 16.16.0 1087 2 F NR\_pos-Core [R2-2403797](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403797.zip)

=> Revised in [R2-2405854](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405854.zip)

[R2-2405854](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405854.zip) Missing Conditionally mandatory features without UE radio access capability parameters for 80ms scheduling offset for positioning SI acquisition Ericsson CR Rel-16 38.306 16.16.0 1087 3 F NR\_pos-Core

[R2-2405572](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405572.zip) OAM solution for the provisioning PRS Assistance Data to LMF Ericsson CR Rel-18 38.305 18.1.0 0167 - A NR\_pos-Core

[R2-2405573](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405573.zip) OAM solution for the provisioning PRS Assistance Data to LMF Ericsson CR Rel-17 38.305 17.7.0 0168 - A NR\_pos-Core

[R2-2405574](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405574.zip) OAM solution for the provisioning PRS Assistance Data to LMF Ericsson CR Rel-16 38.305 16.10.0 0169 - F NR\_pos-Core

# 6 NR Rel-17

Essential corrections only. Editorial/clarifications should be sent to be reviewed and approved by spec rapporteurs prior to submission. Editorials should only be submitted by spec rapporteurs.

## 6.1 Common

(NR\_MG\_enh-Core; leading WG: RAN4; REL-17; WID: [RP-211591](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_92e/Docs/RP-211591.zip))

(NR\_UDC\_enh-Core; leading WG: RAN2; REL-17; WID: [RP-211203](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_92e/Docs/RP-211203.zip))

(NG\_RAN\_PRN\_enh-Core; leading WG: RAN3; REL-17; WID: [RP-202363](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_90e/Docs/RP-202363.zip))

(NR\_IAB\_enh-Core; leading WG: RAN2; REL-17; WID: [RP-211548](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_92e/Docs/RP-211548.zip))

(NR\_UE\_pow\_sav\_enh-Core; leading WG: RAN2; REL-17; WID: [RP-212630](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_93e/Docs/RP-212630.zip))

(LTE\_NR\_DC\_enh2-Core; leading WG: RAN2; REL-17; WID: [RP-201040](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_88e/Docs/RP-201040.zip))

(LTE\_NR\_MUSIM-Core; leading WG: RAN2; REL-17; WID: [RP-212610](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_93e/Docs/RP-212610.zip))

(NR\_Slice -Core; leading WG: RAN2; REL-17; WID: [RP-212534](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_93e/Docs/RP-212534.zip))

(NR\_QoE-Core; leading WG: RAN3; REL-17; WID: [RP-211406](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_92e/Docs/RP-211406.zip))

(NR\_ext\_to\_71GHz-Core; leading WG: RAN1; REL-17; WID: [RP-212637](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_93e/Docs/RP-212637.zip))

(NR\_cov\_enh-Core; leading WG: RAN1; REL-17; WID: [RP-211566](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_92e/Docs/RP-211566.zip)): non-RACH-indication parts

(NR\_redcap-Core; leading WG: RAN1; REL-17; WID: [RP-211574](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_92e/Docs/RP-211574.zip))

(NR\_feMIMO-Core; leading WG: RAN1; REL-17; WID: [RP-212535](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_93e/Docs/RP-212535.zip))

(NR\_SmallData\_INACTIVE-Core, leading WG: RAN2; REL-17; WID: [RP-212594](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_93e/Docs/RP-212594.zip))

(NR\_IIOT\_URLLC\_enh-Core; leading WG: RAN2; REL-17; WID: [RP-210854](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_91e/Docs/RP-210854.zip))

(NR\_MBS-Core; leading WG: RAN2; REL-17; WID: [RP-201038](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_88e/Docs/RP-201038.zip))

(NR\_ENDC\_SON\_MDT\_enh-Core; leading WG: RAN3; REL-17; WID: [RP-201281](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_88e/Docs/RP-201281.zip))

(NR\_NTN\_solutions-Core; leading WG: RAN2; REL-17; WID: [RP-211557](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_92e/Docs/RP-211557.zip))

PRACH partitioning items

NR TEI17: Corrections are accepted. New TEI17 tech proposal requirements: a) authored by an operator (and preferably co-signed by more), AND: b) resolves a concrete problem in the market for this operator (no new vendor initiated enhancements).

Includes Rel-17 Work Items without specific R2 Agenda Item, e.g. RAN1 and RAN4 led items, SA2 and CT1 led items (was previously “Rel-17 Other”)

Includes aspects that does not fit under the more specific AIs, e.g. multi-WI aspects.

Corrections for NR\_NTN\_solutions-Core might be treated in the NTN breakout session.

Tdoc limitation: 4 Tdocs

### 6.1.1 Stage 2 and Organisational

Incoming LSs, etc. You should discuss your stage 2 CRs with the specification rapporteurs before submission. Includes impact to 38.300, 37.340, (36.300 if applicable)

[R2-2404120](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404120.zip) LS on the capability mux-HARQ-ACK-withoutPUCCH-onPUSCH-r16 (R1-2403760; contact: MediaTek) RAN1 LS in Rel-17 TEI17, NR\_newRAT-Core To:RAN2

#### 6.1.1.0 In-principle agreed CRs

[R2-2404720](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404720.zip) Clarification on the srs-AntennaSwitchingBeyond4RX-r17 ZTE Corporation, Sanechips CR Rel-17 38.306 17.8.0 1075 1 F NR\_FeMIMO-Core [R2-2403433](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403433.zip)

[R2-2404721](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404721.zip) Clarification on the srs-AntennaSwitchingBeyond4RX-r17 ZTE Corporation, Sanechips CR Rel-18 38.306 18.1.0 1076 1 A NR\_FeMIMO-Core [R2-2403434](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403434.zip)

[R2-2404722](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404722.zip) Correction on the supportedBandwidthDL/UL-v1780 for the NR-DC (r17) ZTE Corporation, Sanechips CR Rel-17 38.306 17.8.0 1077 1 F NR\_BCS4-Core [R2-2403438](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403438.zip)

[R2-2404723](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404723.zip) Correction on the supportedBandwidthDL/UL-v1780 for the NR-DC (r18) ZTE Corporation, Sanechips CR Rel-18 38.306 18.1.0 1078 1 A NR\_BCS4-Core [R2-2403439](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403439.zip)

#### 6.1.1.1 Other

[R2-2404404](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404404.zip) Terminology alignment on the types of NR NTN deployment CATT, Nokia, Nokia Shanghai Bell, Ericsson, Huawei, HiSilicon, ZTE Corporation, Sanechips CR Rel-17 38.300 17.8.0 0861 - F NR\_NTN\_solutions-Core

[R2-2404405](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404405.zip) Terminology alignment on the types of NR NTN deployment CATT, Nokia, Nokia Shanghai Bell, Ericsson, Huawei, HiSilicon, ZTE Corporation, Sanechips CR Rel-18 38.300 18.1.0 0862 - A NR\_NTN\_solutions-Core

[R2-2405278](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405278.zip) Reference for User Service Description Nokia (Rapporteur), Ericsson, Xiaomi, Qualcomm Incorporated CR Rel-17 38.300 17.8.0 0865 - F NR\_MBS-Core

[R2-2405279](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405279.zip) Reference for User Service Description Nokia (Rapporteur), Ericsson, Xiaomi, Qualcomm Incorporated CR Rel-18 38.300 18.1.0 0866 - A NR\_MBS-Core

### 6.1.2 User Plane corrections

User Plane Related aspects will be handled in the User Plane break out session. (exception: TEI new proposals if any).

#### 6.1.2.0 In Principle Agreed CRs

[R2-2404447](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404447.zip) Correction on RACH resource set availability check vivo, Guangdong Genius CR Rel-17 38.321 17.8.0 1827 2 F NR\_redcap-Core, NR\_cov\_enh-Core, NR\_SmallData\_INACTIVE-Core [R2-2403986](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403986.zip)

=> The CR is agreed

[R2-2404448](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404448.zip) Correction on RACH resource set availability check vivo, Guangdong Genius CR Rel-18 38.321 18.1.0 1828 2 A NR\_redcap-Core, NR\_cov\_enh-Core, NR\_SmallData\_INACTIVE-Core [R2-2403686](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403686.zip)

=> The CR is revised in [R2-2405924](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405924.zip) and agreed to make the change exactly like Rel-17

R2-2405924 Correction on RACH resource set availability check vivo, Guangdong Genius CR Rel-18 38.321 18.1.0 1828 3 A NR\_redcap-Core, NR\_cov\_enh-Core, NR\_SmallData\_INACTIVE-Core

=> Agreed

#### 6.1.2.1 Other

**RACH Resource set selection - redcap**

[R2-2404442](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404442.zip) RACH resource set selection for PDCCH-ordered CFRA for RedCap vivo, LG Electronics, Ericsson, Guangdong Genius discussion Rel-17 NR\_redcap-Core

*Proposal 1: RAN2 to confirm which is the correct understanding when PDCCH order based CFRA resource is provided for RedCap UEs:*

*− Understanding #1: MAC entity selects the set of RACH resource only configured with RedCap indication, i.e. fall into the green highlighted part;*

*− Understanding #2: MAC entity selects the set of RACH resource that are not associated with any feature indication, i.e. fall into the yellow highlighted part.*

*The corresponding TP for understanding #1 and understanding #2 are provided in Annex A and B, respectively.*

- Qualcomm thinks understanding 1 is correct and we need to update RRC spec field description. Samsungs, ZTE, Huawei and LG agrees with understanding 1. Nokia thought it was understanding 2, so sometime need to discuss.

=> RAN2 confirms that the correct understanding is that MAC entity selects the set of RACH resource only configured with RedCap indication, i.e. fall into the green highlighted part

=> The CR from ZTE will be discussed and agreed in CP session

=> Noted

[R2-2405554](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405554.zip) Correction on the RACH resource selection for Msg1 based SI request on the RedCap-specific initial BWP Xiaomi CR Rel-17 38.321 17.8.0 1870 - F NR\_redcap-Core

- Samsung doesn’t agree and the field description put some restrictions on some configuration. The spec is clear and there is nothing broken. Huawei agrees with Samsung and this is changing Rel-17 behavior and it is NBC. Ericsson agrees with the motivation but not what is proposed in the CR. There is another case SI request and we have to do something for that too. Vivo also agrees with Samsung.

- LG supports the intention of the CR

- ZTE explains that the CR makes sense but it is NBC. The concequence that for redcap 4 preambles will be wasted.

=> The CR is not pursued

**MBS and NTN**

[R2-2404250](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404250.zip) Discussion on DRX for MBS Multicast in NR NTN CATT discussion

*Proposal 1: RAN2 confirms configuration of MBS Multicast in NR NTN can be supported in Rel-17/18 Spec.*

*Proposal 2: If the support of MBS Multicast in NR NTN is confirmed in P1, RAN2 agrees to introduce an NTN specific HARQ RTT timer for PTM in 5.7b, e.g. HARQ-RTT-TimerDL-PTM-NTN.*

- Vivo asks how the network knows the UE supports this. CATT Thinks we should add a capability.

*Proposal 2a: When DRX for MBS Multicast is performed in NR NTN, the MAC entity shall:*

*• Extend drx-HARQ-RTT-TimerDL-PTM by “UE-gNB” RTT, and set the extended values to HARQ-RTT-TimerDL-PTM-NTN;*

*• Operate HARQ-RTT-TimerDL-PTM-NTN and HARQ-RTT-TimerDL-NTN following the existing procedure for HARQ RTT timer handling.*

*Proposal 3: Adopt the TP in Appendix 2, if Proposals 2 and 2a are agreeable.*

[R2-2404897](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404897.zip) Discussion on the support of MBS in NTN Huawei, HiSilicon discussion Rel-17 NR\_MBS-Core, NR\_NTN\_solutions-Core

*Proposal 2: UE only determines the HARQ feedback as enabled when both HARQ feedback for NTN and HARQ feedback for MBS multicast are indicated as enabled. Otherwise, UE determines the HARQ feedback as disabled.*

- Qualcomm thinks it should be simple, MBS configuration should take precedence.

**Agreements:**

1. RAN2 confirms configuration of MBS Multicast in NR NTN can be supported for RRC connected mode in Rel-17/18 Spec. FFS for inactive in R18
2. RAN2 agrees to introduce an NTN specific HARQ RTT timer for PTM in 5.7b, e.g. HARQ-RTT-TimerDL-PTM-NTN. No new configuration in RRC will be added. We will introduce a capability.
3. drx-HARQ-RTT-TimerDL-PTM is extended by “UE-gNB” RTT and set the extended values to HARQ-RTT-TimerDL-PTM-NTN.
4. MBS Multicast HARQ configuration takes precedence.

* [AT126][003][R17 MBS-NTN] Agree to CRs (LG)

Intended outcome: Agree to CRs implementing agreements from this meeting

Deadline: 05-24-24

[R2-2404898](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404898.zip) MAC correction on supporting MBS in NTN Huawei, HiSilicon CR Rel-17 38.321 17.8.0 1847 - F NR\_MBS-Core, NR\_NTN\_solutions-Core

[R2-2404899](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404899.zip) MAC correction on supporting MBS in NTN Huawei, HiSilicon CR Rel-18 38.321 18.1.0 1848 - A NR\_MBS-Core, NR\_NTN\_solutions-Core

[R2-2405521](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405521.zip) Correction on multicast DRX to support NTN LG eletronics Inc., Samsung, Xiaomi, Ericsson CR Rel-17 38.321 17.8.0 1820 1 F NR\_MBS\_enh-Core, NR\_NTN\_enh-Core [R2-2403343](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403343.zip)

=> Revised in R2-2406001

R2-2406001 Correction on multicast DRX to support NTN LG eletronics Inc., Samsung, Xiaomi, Ericsson CR Rel-17 38.321 17.8.0 1820 2 F NR\_MBS\_enh-Core, NR\_NTN\_enh-Core

[R2-2405524](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405524.zip) Correction on multicast DRX to support NTN LG eletronics Inc., Samsung, Xiaomi, Ericsson CR Rel-18 38.321 18.1.0 1821 1 A NR\_MBS\_enh-Core, NR\_NTN\_enh-Core [R2-2403344](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403344.zip)

=> Revised in R2-2406002

R2-2406002 Correction on multicast DRX to support NTN LG eletronics Inc., Samsung, Xiaomi, Ericsson CR Rel-18 38.321 18.1.0 1821 2 A NR\_MBS\_enh-Core, NR\_NTN\_enh-Core

R2-2406003 Correction on multicast DRX to support NTN LG Electronics Inc., Samsung, Xiaomi, Ericsson, vivo CR Rel-17 38.306 17.8.0 1129 - F NR\_NTN\_enh-Core, NR\_MBS\_enh-Core

R2-2406004 Correction on multicast DRX to support NTN LG Electronics Inc., Samsung, Xiaomi, Ericsson, vivo CR Rel-18 38.306 18.1.0 1130 - A NR\_NTN\_enh-Core, NR\_MBS\_enh-Core

R2-2406005 Correction on multicast DRX to support NTN LG eletronics Inc., Samsung, Xiaomi, Ericsson CR Rel-17 38.331 17.8.0 4859 - F NR\_NTN\_enh-Core, NR\_MBS\_enh-Core

R2-2406006 Correction on multicast DRX to support NTN LG eletronics Inc., Samsung, Xiaomi, Ericsson CR Rel-18 38.331 18.1.0 4860 - A NR\_NTN\_enh-Core, NR\_MBS\_enh-Core

**MIMO - Flexible TCI state activation**

[R2-2404406](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404406.zip) On the postponed issue for flexible number TCI state activation CATT discussion

*Proposal 1: RAN2 confirms that current unified TCI state activation/deactivation MAC CE can include less than 8 TCI codepoints (which can be figured out by the UE via L field in the subheader and Pi field).*

Proposal 2: No change to the current Spec is needed to clarify P1 (if agreed).

[R2-2405395](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405395.zip) Support of flexible number of TCI state activation Samsung CR Rel-17 38.321 17.8.0 1860 - F NR\_FeMIMO-Core

[R2-2405396](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405396.zip) Support of flexible number of TCI state activation Samsung CR Rel-18 38.321 18.1.0 1861 - A NR\_FeMIMO-Core

Agreements

1 RAN2 confirms that current unified TCI state activation/deactivation MAC CE can include less than 8 TCI codepoints (which can be figured out by the UE via L field in the subheader and Pi field).

2 No change to the current Spec is needed to clarify P1 (if agreed).

3 FFS Whether Pi field modifications are critical

**MIMO – BFD-SR set specific BFR**

[R2-2405188](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405188.zip) Clarification to 38.321 On BFD-RS set specific BFR ZTE Corporation CR Rel-17 38.321 17.8.0 1856 - F NR\_FeMIMO-Core

- Vivo, oppo, not needed. LG supports the intention

=> The CR is postponed

[R2-2405189](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405189.zip) Clarification to 38.321 On BFD-RS set specific BFR ZTE Corporation CR Rel-18 38.321 18.1.0 1857 - A NR\_FeMIMO-Core

**HARQ RTT Timer**

[R2-2404669](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404669.zip) Clarification on HARQ RTT Timer operation Apple, Nokia, Nokia Shanghai Bell, MediaTek Inc., ZTE CR Rel-18 38.321 18.1.0 1843 - F TEI18

=> Revised in R2-2406017

R2-2406017 Clarification on HARQ RTT Timer operation Apple, Nokia, Nokia Shanghai Bell, MediaTek Inc., ZTE CR Rel-18 38.321 18.1.0 1843 1 F TEI18

[R2-2405115](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405115.zip) Correction on the start of HARQ RTT timer Huawei, HiSilicon CR Rel-17 38.321 17.8.0 1852 - F TEI17

[R2-2405116](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405116.zip) Correction on the start of HARQ RTT timer Huawei, HiSilicon CR Rel-18 38.321 18.1.0 1853 - A TEI17

[R2-2405475](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405475.zip) Clarification on HARQ RTT Timer operation LG Electronics, Samsung CR Rel-17 38.321 17.8.0 1868 - F TEI17

[R2-2405476](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405476.zip) Clarification on HARQ RTT Timer operation LG Electronics, Samsung CR Rel-18 38.321 18.1.0 1869 - A TEI17

[R2-2404249](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404249.zip) Impact on HARQ RTT timer handling due to UL and SL prioritization CATT discussion

* [AT126][004][R17 UP] HARQ RTT offline (Apple)

Intended outcome: discussion on HARQ RTT

Deadline: 05-24-24

R2-2405996 Report of [AT126][004][R17 UP] HARQ RTT offline (Apple) Apple discussion Rel-17 TEI17

*Proposal 1: Reflect RAN2#125 agreement on HARQ RTT Timer in spec from R18, and it’s up to UE implementation in R17. (Option 1)*

*Proposal 2: To capture RAN2 agreements in MAC spec as indicated in R2-2404669.*

­- LG and Samsung, CATT think that we shouldn’t have different behaviour between R17 and R18. Samsung indicates that Option 1 is not acceptable. Ericsson also thinks it should be done from R17.

- Qualcomm explains that we can’t change R17 as there are actual UEs in the field. Prefer to have same behaviour and that’s why they propose to add a UE capability. Samsung thinks that the capability is not very useful if we only start in R18.

- Samsung and CATT think that it should be clear that it is based on actual transmition.

- Ericsson thinks that there are network implementations as well in the field.

- Apple indicates that there are different implementations in the field.

- Samsung indicates that there will interoperability problem. Qualcomm thinks that the network has to handle R17 UEs, so there is no problem. Nokia thinks that there is the option to only configure this feature from R18 if R17 UEs are a problem.

- Samsung asks if we have to add a table in MAC spec. Nokia indicates that we have had many early implementable MAC CRs and we didn’t add a table.

**Agreements**

- No specification update for R17.

- From R18, we will specify that:

When drx-LastTransmissionUL is configured, drx-HARQ-RTT-TimerUL is started after the last PUSCH transmission occasion of a bundle regardless of whether that last PUSCH transmission occasion is used for a PUSCH transmission for that bundle or not.

*-* add magic sentence indicating a R17 UE may implement this CR (if it wishes to).

**SDT**

[R2-2404918](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404918.zip) Correction on cg-SDT-RetransmissionTimer stop NEC CR Rel-17 38.321 17.8.0 1849 - F NR\_SmallData\_INACTIVE-Core

- Vivo, ZTE, Huawei think it’s already clear this timer is for initial trnamsision

=> The CR is not pursued

[R2-2404919](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404919.zip) Correction on cg-SDT-RetransmissionTimer stop NEC CR Rel-18 38.321 18.1.0 1850 - A NR\_SmallData\_INACTIVE-Core

=> Not treated

### 6.1.3 Control Plane corrections

#### 6.1.3.0 In Principle Agreed CRs

[R2-2404178](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404178.zip) CEF and RLF reporting for RedCap UEs MediaTek Inc., Qualcomm Incorporated, Nordic Semiconductor ASA, Ericsson CR Rel-17 38.306 17.8.0 1060 1 F NR\_SON\_MDT-Core, NR\_redcap-Core [R2-2402238](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402238.zip)

=> Revised in [R2-2405718](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405718.zip)

[R2-2405718](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405718.zip) CEF and RLF reporting for RedCap UEs MediaTek Inc., Qualcomm Incorporated, Nordic Semiconductor ASA, Ericsson CR Rel-17 38.306 17.8.0 1060 2 F NR\_SON\_MDT-Core, NR\_redcap-Core

[R2-2404179](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404179.zip) CEF and RLF reporting for (e)RedCap UEs MediaTek Inc., Qualcomm Incorporated, Nordic Semiconductor ASA, Ericsson CR Rel-18 38.306 18.1.0 1061 1 A NR\_SON\_MDT-Core, NR\_redcap-Core, NR\_redcap\_enh-Core [R2-2402239](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402239.zip)

=> Revised in [R2-2405719](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405719.zip)

[R2-2405719](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405719.zip) CEF and RLF reporting for (e)RedCap UEs MediaTek Inc., Qualcomm Incorporated, Nordic Semiconductor ASA, Ericsson CR Rel-18 38.306 18.1.0 1061 2 A NR\_SON\_MDT-Core, NR\_redcap-Core, NR\_redcap\_enh-Core

[R2-2404180](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404180.zip) CEF and RLF reporting for RedCap UEs MediaTek Inc., Qualcomm Incorporated, Nordic Semiconductor ASA, Ericsson CR Rel-17 38.331 17.8.0 4647 1 F NR\_SON\_MDT-Core, NR\_redcap-Core [R2-2402240](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402240.zip)

=> Revised in [R2-2405720](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405720.zip)

[R2-2405720](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405720.zip) CEF and RLF reporting for RedCap UEs MediaTek Inc., Qualcomm Incorporated, Nordic Semiconductor ASA, Ericsson CR Rel-17 38.331 17.8.0 4647 2 F NR\_SON\_MDT-Core, NR\_redcap-Core

[R2-2404181](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404181.zip) CEF and RLF reporting for (e)RedCap UEs MediaTek Inc., Qualcomm Incorporated, Nordic Semiconductor ASA, Ericsson CR Rel-18 38.331 18.1.0 4648 1 A NR\_SON\_MDT-Core, NR\_redcap-Core, NR\_redcap\_enh-Core [R2-2402241](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402241.zip)

=> Revised in [R2-2405721](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405721.zip)

[R2-2405721](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405721.zip) CEF and RLF reporting for (e)RedCap UEs MediaTek Inc., Qualcomm Incorporated, Nordic Semiconductor ASA, Ericsson CR Rel-18 38.331 18.1.0 4648 2 A NR\_SON\_MDT-Core, NR\_redcap-Core, NR\_redcap\_enh-Core

[R2-2404237](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404237.zip) Correction to PDCP configuration for multicast MRB MediaTek inc. CR Rel-17 38.331 17.8.0 4652 1 F NR\_MBS-Core [R2-2402294](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402294.zip)

[R2-2404239](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404239.zip) Correction to PDCP configuration for multicast MRB MediaTek Inc. CR Rel-18 38.331 18.1.0 4651 1 A NR\_MBS-Core [R2-2402293](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402293.zip)

[R2-2404522](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404522.zip) Correction CR for QoE measurements and conditional handover Ericsson, China Unicom CR Rel-18 38.331 18.1.0 4713 1 F NR\_QoE-Core [R2-2403251](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403251.zip)

[R2-2404698](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404698.zip) Correction on TRS for idle and inactive UEs CATT, Ericsson CR Rel-18 38.300 18.1.0 0836 2 F NR\_UE\_pow\_sav\_enh-Core [R2-2403847](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403847.zip)

[R2-2404845](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404845.zip) Clarification on usage of LEO or NGSO MediaTek Inc. CR Rel-17 38.331 17.8.0 4745 1 F NR\_NTN\_solutions-Core [R2-2403466](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403466.zip)

[R2-2404846](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404846.zip) Clarification on usage of LEO or NGSO MediaTek Inc. CR Rel-18 38.331 18.1.0 4746 1 A NR\_NTN\_solutions-Core [R2-2403467](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403467.zip)

[R2-2404847](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404847.zip) Clarification on usage of LEO or NGSO MediaTek Inc. CR Rel-17 38.306 17.8.0 1082 1 F NR\_NTN\_solutions-Core [R2-2403468](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403468.zip)

[R2-2404848](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404848.zip) Clarification on usage of LEO or NGSO MediaTek Inc. CR Rel-18 38.306 18.1.0 1083 1 A NR\_NTN\_solutions-Core [R2-2403470](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403470.zip)

[R2-2404988](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404988.zip) Clarification on TRS in idle and inactive Ericsson, MediaTek, ZTE, Nokia, Huawei, HiSilicon, Apple, CATT CR Rel-17 38.331 17.8.0 4754 2 F NR\_UE\_pow\_sav\_enh-Core [R2-2403848](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403848.zip)

[R2-2404989](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404989.zip) Correction on TRS in idle and inactive Ericsson, MediaTek, ZTE, Nokia, Huawei, HiSilicon, Apple, CATT CR Rel-18 38.331 18.1.0 4755 2 F NR\_UE\_pow\_sav\_enh-Core [R2-2403849](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403849.zip)

#### 6.1.3.1 NR RRC

Corrections to 38331, and related change to other TS if applicable, except UE caps.

[R2-2404482](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404482.zip) Alternative correction CR for QoE measurements and conditional handover Ericsson discussion Rel-17 NR\_QoE-Core Revised

[R2-2404737](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404737.zip) Correction of gNB identity derivation in NPN-only cells Nokia CR Rel-17 38.331 17.8.0 4789 - F TEI17 Late

[R2-2404738](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404738.zip) Correction of gNB identity derivation in NPN-only cells Nokia CR Rel-18 38.331 18.1.0 4790 - A TEI17 Late

[R2-2404784](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404784.zip) Miscellaneous non-controversial corrections Set XXI Ericsson CR Rel-15 38.331 15.25.0 4797 - F NR\_newRAT-Core Late

[R2-2404785](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404785.zip) Miscellaneous non-controversial corrections Set XXI Ericsson CR Rel-16 38.331 16.16.0 4798 - F NR\_newRAT-Core Late

[R2-2404786](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404786.zip) Miscellaneous non-controversial corrections Set XXI Ericsson CR Rel-17 38.331 17.8.0 4718 1 F NR\_newRAT-Core [R2-2403331](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403331.zip)

[R2-2404787](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404787.zip) Miscellaneous non-controversial corrections Set XXI Ericsson CR Rel-18 38.331 18.1.0 4799 - F NR\_newRAT-Core

[R2-2404965](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404965.zip) Correction on when featureCombination is empty Ericsson CR Rel-17 38.331 17.8.0 4801 - F NR\_redcap-Core, NR\_SmallData\_INACTIVE-Core, NR\_cov\_enh-Core, NR\_slice-Core

[R2-2404966](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404966.zip) Correction on when featureCombination is empty Ericsson CR Rel-18 38.331 18.1.0 4802 - A NR\_redcap-Core, NR\_SmallData\_INACTIVE-Core, NR\_cov\_enh-Core, NR\_slice-Core

[R2-2404990](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404990.zip) Clarification RLM/BFD relaxation and short DRX Ericsson, Nokia, Qualcomm, Huawei, HiSilicon CR Rel-17 38.331 17.8.0 4770 1 F NR\_UE\_pow\_sav\_enh-Core [R2-2403862](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403862.zip)

=> Revised in [R2-2405717](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405717.zip)

[R2-2405717](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405717.zip) Clarification RLM/BFD relaxation and short DRX Ericsson, Nokia, Qualcomm, Huawei, HiSilicon CR Rel-17 38.331 17.8.0 4770 2 F NR\_UE\_pow\_sav\_enh-Core

[R2-2404991](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404991.zip) Clarification RLM/BFD relaxation and short DRX Ericsson, Nokia, Qualcomm, Huawei, HiSilicon CR Rel-18 38.331 18.1.0 4771 1 F NR\_UE\_pow\_sav\_enh-Core [R2-2403863](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403863.zip)

[R2-2405052](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405052.zip) Clarification on RACH-ConfigCommon for PDCCH order based CFRA and SI request ZTE Corporation, Samsung CR Rel-17 38.331 17.8.0 4807 - F NR\_redcap-Core

[R2-2405053](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405053.zip) Correction on RACH-ConfigCommon for PDCCH order based CFRA and SI request ZTE Corporation, Samsung CR Rel-18 38.331 18.1.0 4808 - F NR\_redcap-Core, NR\_cov\_enh2, NR\_redcap\_enh

[R2-2405087](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405087.zip) Adding PCI and ARFCN of target cell for intra-RAT SHR ZTE Corporation, Sanechips, Ericsson, Huawei, CATT, Samsung CR Rel-17 38.331 17.8.0 4811 - F NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2405088](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405088.zip) Adding PCI and ARFCN of target cell for intra-RAT SHR ZTE Corporation, Sanechips, Ericsson, Huawei CR Rel-18 38.331 18.1.0 4812 - A NR\_ENDC\_SON\_MDT\_enh2-Core

=> Revised in [R2-2405700](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405700.zip)

[R2-2405700](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405700.zip) Adding PCI and ARFCN of target cell for intra-RAT SHR ZTE Corporation, Sanechips, Ericsson, Huawei, CATT, Samsung CR Rel-18 38.331 18.1.0 4812 1 A NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2405089](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405089.zip) Misclassification of RLF reports as Too Early HO failure Ericsson CR Rel-17 38.331 17.8.0 4813 - F NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2405090](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405090.zip) Misclassification of RLF reports as Too Early HO failure Ericsson CR Rel-18 38.331 18.1.0 4814 - A NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2405324](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405324.zip) Correction on the field descriptions of some Need M fields Google CR Rel-17 38.331 17.8.0 4823 - F NR\_unlic-Core, 5G\_V2X\_NRSL-Core, NR\_IIOT-Core, NR\_SON\_MDT-Core, NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2405327](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405327.zip) Correction on the field descriptions of some Need M fields Google Inc. CR Rel-18 38.331 18.1.0 4824 - A NR\_unlic-Core, 5G\_V2X\_NRSL-Core, NR\_IIOT-Core, NR\_SON\_MDT-Core, NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2405485](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405485.zip) Xiaomi CR Rel-17 38.331 17.8.0 4839 - F NR\_SmallData\_INACTIVE-Core

[R2-2405486](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405486.zip) Xiaomi CR Rel-18 38.331 18.1.0 4840 - A NR\_SmallData\_INACTIVE-Core

[R2-2405503](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405503.zip) Prioritization of SDT unicast over MBS broadcast Samsung, CATT, Nokia, LG Electronics Inc. CR Rel-17 38.331 17.8.0 4842 - F NR\_MBS-Core, NR\_SmallData\_INACTIVE-Core

[R2-2405559](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405559.zip) Correction on the RACH resource selection for Msg1 based SI request Xiaomi CR Rel-17 38.331 17.8.0 4844 - F NR\_redcap-Core

[R2-2405587](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405587.zip) Correction on successful handover report configuration Samsung CR Rel-17 38.331 17.8.0 4845 - F NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2405599](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405599.zip) Correction on successful handover report configuration Samsung CR Rel-18 38.331 18.1.0 4846 - A NR\_ENDC\_SON\_MDT\_enh-Core Withdrawn

[R2-2405606](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405606.zip) Correction on successful handover report configuration Samsung CR Rel-18 38.331 18.1.0 4848 - A NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2405658](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405658.zip) Alternative correction CR for QoE measurements and conditional handover Ericsson discussion Rel-17 NR\_QoE-Core [R2-2404482](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404482.zip)

#### 6.1.3.2 UE capabilities

UE cap corrections 38306, 38331.

[R2-2404110](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404110.zip) Reply LS on Parallel Tx Capability (R1-2403619; contact: ZTE) RAN1 LS in Rel-17 TEI17, NR\_newRAT-Core, NR\_2step\_RACH, NR\_IIOT\_URLLC\_enh To:RAN2

[R2-2404530](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404530.zip) Miscellaneous non-controversial rapporteur corrections Intel Corporation CR Rel-17 38.306 17.8.0 1097 - F NR\_newRAT-Core, NR\_eMIMO-Core, NR\_unlic-Perf, 5G\_V2X\_NRSL-Core, NR\_IIOT\_URLLC\_enh-Core, NR\_pos\_enh-Core, NR\_cov\_enh-Core, NR\_FeMIMO-Core, NR\_ext\_to\_71GHz-Core, NR\_MBS-Core, NR\_demod\_enh2-Perf, NR\_SL\_enh-Core

[R2-2404531](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404531.zip) Terminology alignment for NR NTN Intel Corporation, Ericsson, ZTE Corporation, Sanechips, Huawei, HiSilicon CR Rel-17 38.306 17.8.0 1098 - F NR\_NTN\_solutions-Core

[R2-2404532](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404532.zip) Terminology alignment for NR NTN Intel Corporation, Ericsson, ZTE Corporation, Sanechips, Huawei, HiSilicon CR Rel-18 38.306 18.1.0 1099 - A NR\_NTN\_solutions-Core, NR\_NTN\_enh-Core

[R2-2404553](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404553.zip) Correction to BCS5 bandwidth capabilities Nokia, Qualcomm Incorporated, ZTE Corporation, Sanechips, Huawei, HiSilicon, Ericsson CR Rel-17 38.306 17.8.0 1080 1 F NR\_BCS4-Core [R2-2403450](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403450.zip)

[R2-2404554](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404554.zip) Correction to BCS5 bandwidth capabilities Nokia, Qualcomm Incorporated, ZTE Corporation, Sanechips, Huawei, HiSilicon, Ericsson CR Rel-18 38.306 18.1.0 1081 1 A NR\_BCS4-Core [R2-2403451](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403451.zip)

[R2-2404747](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404747.zip) Introduction of Inter-node Coordination on the Aggregated Bandwidth for the NR-DC (r17) ZTE Corporation, Sanechips,Ericsson,Nokia,Huawei, HiSilicon CR Rel-17 38.331 17.8.0 4735 2 F NR\_BCS4-Core [R2-2403983](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403983.zip)

[R2-2404748](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404748.zip) Introduction of Inter-node Coordination on the Aggregated Bandwidth for the NR-DC (r18) ZTE Corporation, Sanechips,Ericsson,Nokia,Huawei, HiSilicon CR Rel-18 38.331 18.1.0 4736 2 A NR\_BCS4-Core [R2-2403984](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403984.zip)

[R2-2404794](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404794.zip) Support of Enhanced channel raster by (e)RedCap UE Ericsson discussion Rel-17 NR\_redcap-Core

[R2-2405006](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405006.zip) Mandating the capability mux-HARQ-ACK-withoutPUCCH-onPUSCH-r16 MediaTek Inc., Ericsson CR Rel-17 38.306 17.8.0 1112 - F TEI17, NR\_newRAT-Core

=> Revised in [R2-2405722](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405722.zip)

[R2-2405722](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405722.zip) Mandating the capability mux-HARQ-ACK-withoutPUCCH-onPUSCH-r16 MediaTek Inc., Ericsson CR Rel-17 38.306 17.8.0 1112 1 F TEI17, NR\_newRAT-Core

[R2-2405007](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405007.zip) Mandating the capability mux-HARQ-ACK-withoutPUCCH-onPUSCH-r16 MediaTek Inc., Ericsson CR Rel-18 38.306 18.1.0 1113 - F TEI18, NR\_newRAT-Core

=> Revised in [R2-2405723](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405723.zip)

[R2-2405723](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405723.zip) Mandating the capability mux-HARQ-ACK-withoutPUCCH-onPUSCH-r16 MediaTek Inc., Ericsson CR Rel-18 38.306 18.1.0 1113 1 F TEI18, NR\_newRAT-Core

[R2-2405008](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405008.zip) [DRAFT] Reply LS on the capability mux-HARQ-ACK-withoutPUCCH-onPUSCH-r16 MediaTek Inc. LS out Rel-17 TEI17, NR\_newRAT-Core To:RAN1

[R2-2405379](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405379.zip) Introduction of new intra-band EN-DC capabilities for inter-band EN-DC Google Inc., CATT CR Rel-17 38.331 17.8.0 4750 2 F NR\_newRAT-Core [R2-2403842](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403842.zip)

[R2-2405381](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405381.zip) Introduction of new intra-band EN-DC capabilities for inter-band EN-DC Google Inc., CATT CR Rel-17 38.306 17.8.0 1084 2 F NR\_newRAT-Core [R2-2403843](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403843.zip)

[R2-2405471](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405471.zip) Introduction of new intra-band EN-DC capabilities for inter-band EN-DC Google Inc., CATT CR Rel-18 38.331 18.1.0 4751 2 A NR\_newRAT-Core [R2-2403518](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403518.zip)

[R2-2405474](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405474.zip) Introduction of new intra-band EN-DC capabilities for inter-band EN-DC Google Inc., CATT CR Rel-18 38.306 18.1.0 1085 2 A NR\_newRAT-Core [R2-2403523](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403523.zip)

[R2-2405479](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405479.zip) Draft Reply LS on IE supportedBandwidthCombinationSetIntraENDC and IE intraBandENDC-Support Google Inc. LS out TEI17 To:RAN4

[R2-2405509](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405509.zip) Clarification on srs-SwitchingAffectedBandsListNR Huawei, HiSilicon CR Rel-17 38.306 17.8.0 1120 - F TEI17

[R2-2405510](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405510.zip) Clarification on srs-SwitchingAffectedBandsListNR Huawei, HiSilicon CR Rel-18 38.306 18.1.0 1121 - A TEI17

#### 6.1.3.3 Other

Including idle and inactive behaviour specified in 38.304 or 36.304.

[R2-2405280](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2405280.zip) Reference for User Service Description Nokia, Ericsson, Xiaomi, Qualcomm Incorporated CR Rel-17 38.304 17.8.0 0404 - F NR\_MBS-Core

[R2-2405281](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405281.zip) Reference for User Service Description Nokia, Ericsson, Xiaomi, Qualcomm Incorporated CR Rel-18 38.304 18.1.0 0405 - A NR\_MBS-Core

[R2-2405457](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405457.zip) Miscellaneous Corrections (Rapporteur) Qualcomm Incorporated, Nokia, CATT CR Rel-17 38.304 17.8.0 0406 - F NR\_UE\_pow\_sav\_enh-Core, NR\_redcap-Core

[R2-2405459](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405459.zip) Miscellaneous Corrections (Rapporteur) Qualcomm Incorporated, Ericsson, Nokia, CATT CR Rel-18 38.304 18.1.0 0407 - F NR\_UE\_pow\_sav\_enh-Core, NR\_redcap-Core, NR\_UAV-Core

## 6.2 NR Sidelink relay

(NR\_SL\_Relay-Core; leading WG: RAN2; REL-17; WID: [RP-212601](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_93e/Docs/RP-212601.zip))

Tdoc Limitation: 1 tdoc

[R2-2405349](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2405349.zip) Corrections for sidelink UE Information ZTE, Sanechips CR Rel-17 38.331 17.8.0 4828 - F NR\_SL\_relay-Core

[R2-2405350](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405350.zip) Corrections for sidelink UE Information ZTE, Sanechips CR Rel-18 38.331 18.1.0 4829 - A NR\_SL\_relay-Core

[R2-2405363](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405363.zip) Clarification to s-MeasConfig for L2 U2N relay case Huawei, HiSilicon, Sharp, CATT, LG CR Rel-17 38.331 17.8.0 4830 - F NR\_SL\_relay-Core

[R2-2405364](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405364.zip) Clarification to s-MeasConfig for L2 U2N relay case Huawei, HiSilicon, Sharp, CATT, LG CR Rel-18 38.331 18.1.0 4831 - A NR\_SL\_relay-Core

[R2-2405365](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405365.zip) Miscellaneous RRC corrections for SL relay Huawei, HiSilicon CR Rel-17 38.331 17.8.0 4682 2 F NR\_SL\_relay-Core [R2-2403800](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403800.zip)

[R2-2405366](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405366.zip) Miscellaneous RRC corrections for SL relay Huawei, HiSilicon CR Rel-18 38.331 18.1.0 4683 2 A NR\_SL\_relay-Core [R2-2403801](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403801.zip)

[R2-2405408](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405408.zip) Correction on SidelinkUEInformationNR Philips International B.V. CR Rel-17 38.331 17.8.0 4731 1 F NR\_SL\_relay-Core [R2-2403398](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403398.zip)

[R2-2405412](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405412.zip) Correction on SidelinkUEInformationNR Philips International B.V. CR Rel-18 38.331 18.1.0 4732 1 A NR\_SL\_relay-Core [R2-2403400](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403400.zip)

## 6.3 Void

## 6.4 NR positioning enhancements

(NR\_pos\_enh-Core; leading WG: RAN1; REL-17; WID: [RP-210903](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_91e/Docs/RP-210903.zip))

Tdoc Limitation: 1 tdoc

[R2-2404617](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404617.zip) Correction on SP SRS activation deactivation MAC CE(R17) ZTE Corporation draftCR Rel-17 38.321 17.8.0 F NR\_pos\_enh-Core Withdrawn

[R2-2404618](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404618.zip) Correction on SP SRS activation deactivation MAC CE(R18) ZTE Corporation draftCR Rel-18 38.321 18.1.0 F NR\_pos\_enh-Core Withdrawn

[R2-2404625](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404625.zip) Correction on SP SRS activation/deactivation MAC CE ZTE Corporation CR Rel-17 38.321 17.8.0 1840 - F NR\_pos\_enh-Core

[R2-2404626](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404626.zip) Correction on SP SRS activation deactivation MAC CE(R18) ZTE Corporation CR Rel-18 38.321 18.1.0 1841 - A NR\_pos\_enh-Core

[R2-2404756](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404756.zip) Correction on the UL TEG report Huawei, HiSilicon, Ericsson CR Rel-17 38.331 17.8.0 4794 - F NR\_pos\_enh-Core

[R2-2404757](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404757.zip) Correction on the UL TEG report Huawei, HiSilicon, Ericsson CR Rel-18 38.331 18.1.0 4795 - A NR\_pos\_enh-Core

[R2-2405255](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405255.zip) Introduction of NR UE Rx-Tx time difference measurement in NR UL E-CID Ericsson, Polaris Wireless, China Telecom, NTT Docomo, AT&T, FirstNet, Intel, Comtech, Nokia, Nokia Shanghai Bell, Verizon Wireless, Huawei, ZTE CR Rel-18 38.305 18.1.0 0164 2 F NR\_pos\_enh-Core [R2-2403740](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403740.zip)

[R2-2405282](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405282.zip) Corrections to NR-On-Demand-DL-PRS-Information IE and ten-ms-unit-ResponseTime capability Nokia CR Rel-17 37.355 17.8.0 0508 - F NR\_pos\_enh-Core

[R2-2405283](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405283.zip) Corrections to NR-On-Demand-DL-PRS-Information IE and ten-ms-unit-ResponseTime capability Nokia CR Rel-18 37.355 18.1.0 0509 - A NR\_pos\_enh-Core

[R2-2405405](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405405.zip) Correction on posSIB(s) acquisition [SI-SCHEDULING] Philips International B.V., Ericsson CR Rel-17 38.331 17.8.0 4467 2 F NR\_pos\_enh-Core [R2-2403387](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403387.zip)

[R2-2405406](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405406.zip) Correction on posSIB(s) acquisition [SI-SCHEDULING] Philips International B.V., Ericsson CR Rel-18 38.331 18.1.0 4725 1 A NR\_pos\_enh-Core [R2-2403388](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403388.zip)

[R2-2405570](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405570.zip) Correction of when to stop the triggered SR for positioning measurement gap activation/deactivation Ericsson, vivo CR Rel-17 38.321 17.8.0 1871 - F NR\_pos\_enh-Core

[R2-2405571](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405571.zip) Correction of when to stop the triggered SR for positioning measurement gap activation/deactivation Ericsson, vivo CR Rel-18 38.321 18.1.0 1872 - A NR\_pos\_enh-Core

[R2-2405608](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405608.zip) Correction on internode message for posSRS in RRC\_INACTIVE Huawei, HiSilicon CR Rel-17 38.331 17.8.0 4849 - F NR\_pos\_enh-Core Withdrawn

[R2-2405609](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405609.zip) Correction on internode message for posSRS in RRC\_INACTIVE Huawei, HiSilicon CR Rel-18 38.331 18.1.0 4850 - A NR\_pos\_enh-Core Withdrawn

## 6.6 NR Sidelink enhancements

(NR\_SL\_enh-Core; leading WG: RAN1; REL-17; WID: [RP-202846](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_90e/Docs/RP-202846.zip))

Tdoc Limitation: 1 tdoc

Note for RRC and MAC CRs, CR rapporteur’s summary and suggestion may be provided. CR rapporteurs will take care of miscellaneous CRs to collect small changes. Please contact / coordinate with CR rapporteur company first for small changes (e.g. non-controversial clarification/correction, editorial correction, etc.). This AI also includes in-principle agreed CRs (in-principle agreed CRs are not counted in tdoc limitation).

[R2-2404494](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404494.zip) Correction to MAC on cast type Ericsson CR Rel-16 38.321 16.15.0 1836 - F NR\_SL\_enh-Core Withdrawn

[R2-2404495](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404495.zip) Correction to MAC on cast type Ericsson CR Rel-17 38.321 17.8.0 1837 - F NR\_SL\_enh-Core

[R2-2404523](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404523.zip) Correction to MAC on cast type Ericsson CR Rel-18 38.321 18.1.0 1838 - A NR\_SL\_enh-Core

[R2-2405234](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405234.zip) Correction on tx profile for SL DRX ZTE Corporation, Sanechips CR Rel-17 38.331 17.8.0 4757 2 F NR\_SL\_enh-Core [R2-2403921](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403921.zip)

[R2-2405235](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405235.zip) Correction on tx profile for SL DRX ZTE Corporation, Sanechips CR Rel-18 38.331 18.1.0 4758 2 A NR\_SL\_enh-Core [R2-2403922](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403922.zip)

[R2-2405413](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405413.zip) Correction on NR SL discovery transmission Philips International B.V. CR Rel-17 38.331 17.8.0 4834 - F NR\_SL\_enh-Core

[R2-2405432](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405432.zip) Correction on NR SL discovery transmission Philips International B.V. CR Rel-18 38.331 18.1.0 4835 - A NR\_SL\_enh-Core

# 7 Rel-18

## 7.0 Common

Multi-WI Rel-18 items, e.g. cross-WI-issues not handled under another WI. UE capabilities.

### 7.0.1 UE Capabilities

Multi-WI handling of Rel-18 feature lists and UE capability Mega CRs.

**RAN1/RAN4 Feature list LSs**

[R2-2404116](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404116.zip) LS on Rel-18 RAN1 UE features list for NR after RAN1#116bis (R1-2403705; contact: NTT DOCOMO, AT&T) RAN1 LS in Rel-18 NR\_MIMO\_evo\_DL\_UL, NR\_pos\_enh2, Netw\_Energy\_NR, NR\_netcon\_repeater, NR\_NTN\_enh, NR\_Mob\_enh2, NR\_SL\_enh2, NR\_redcap\_enh, NR\_MC\_enh, NR\_XR\_enh, NR\_FR1\_lessthan\_5MHz\_BW, NR\_DSS\_enh, NR\_BWP\_wor, NR\_cov\_enh2, TEI18 To:RAN2, RAN4

=> Noted

[R2-2404130](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404130.zip) LS on RAN4 UE feature list for Rel-18 (version 4) (R4-2406679; contact: CMCC) RAN4 LS in Rel-18 NR\_ENDC\_RF\_FR1\_enh2, NR\_channel\_raster\_enh, NR\_FR2\_multiRX\_DL, NR\_RRM\_enh3, NR\_MG\_enh2, NonCol\_intraB\_ENDC\_NR\_CA, NR\_HST\_FR2\_enh, NR\_ATG, NR\_demod\_enh3, NR\_pos\_enh2, NR\_MC\_enh, NR\_Mob\_enh2, NR\_NTN\_enh, NR\_cov\_enh2, Netw\_Energy\_NR, 4Rx\_low\_NR\_band\_handheld\_3Tx\_NR\_CA\_ENDC, NR\_SL\_enh2 To:RAN2 Cc:RAN1

=> Noted

**Rapporteur CRs**

[R2-2404527](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404527.zip) Corrections and Updates to UE capabilities for Rel-18 WIs, including TEI18 [RAN1] Intel Corporation draftCR Rel-18 38.306 18.1.0 B NR\_MIMO\_evo\_DL\_UL-Core, NR\_cov\_enh2-Core, NR\_MC\_enh-Core, NR\_Mob\_enh2-Core, NR\_FR2\_multiRX\_DL-Core, NR\_DSS\_enh-Core, NR\_NTN\_enh-Core, Netw\_Energy\_NR-Core, NR\_FR1\_lessthan\_5MHz\_BW-Core, NR\_MG\_enh2-Core, NR\_SL\_enh2-Core, NR\_UAV-Core, TEI18

=> The CR is endorsed as baseline and will be further updated post meeting

[R2-2404528](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404528.zip) Corrections and Updates to UE capabilities for Rel-18 WIs, including TEI18 [RAN1] Intel Corporation draftCR Rel-18 38.331 18.1.0 B NR\_MIMO\_evo\_DL\_UL-Core, NR\_cov\_enh2-Core, NR\_MC\_enh-Core, NR\_Mob\_enh2-Core, NR\_FR2\_multiRX\_DL-Core, Netw\_Energy\_NR-Core, NR\_FR1\_lessthan\_5MHz\_BW-Core, NR\_MG\_enh2-Core, NR\_SL\_enh2-Core, NR\_ATG-Core, TEI18

=> The CR is endorsed as baseline and will be further updated post meeting

**Mobility – to be treated in mobility breakout session first (maybe CB)**

[R2-2404705](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404705.zip) Band-pair signalling for Early TA acquisition UE capabilities Qualcomm Incorporated discussion Rel-18 NR\_Mob\_enh2-Core

Proposal: Define dynamic UE capability reporting mechanism for RAN4’s FG39-4/4a/5, in which:

 In RRCReconfiguration/RRCResume, the network configures, a list of NR bands that the UE is requested to report as the target bands for RACH transmission.

 In RRCReconfigurationComplete/RRCResumeComplete, the UE reports, for each requested target band, the interruption time / preparation time required for the serving cells.

[R2-2405245](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405245.zip) Mobility UE capabilities with Per band pair per band combination granularity Huawei, HiSilicon discussion Rel-18 NR\_Mob\_enh2-Core

Proposal: Implement the new per band pair per band combination Rel-18 mobility capabilities with per FS granularity.

### 7.0.2 CCCH LCID extension

Tdoc limitation: 1

Corrections only

### 7.0.3 ASN.1 Review

Contributions on common ASN.1 identified issues and other general issues (Tdoc limitation of 1 addressing all RILs applies to this AI as well)

**ASN.1 Rapporteur Input**

NR Informational (to be Noted)

[R2-2404788](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404788.zip) NR ASN.1 Q2 Class 0 Issues Ericsson discussion Rel-18 TEI18

=> Noted

[R2-2404789](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404789.zip) NR ASN.1 Q2 Review file Ericsson discussion Rel-18 TEI18

=> Noted

[R2-2404790](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404790.zip) NR RIL List Q2 Ericsson discussion Rel-18 TEI18

=> Noted

LTE Informational (to be Noted)

[R2-2405402](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405402.zip) LTE ASN.1 Review file Samsung discussion Rel-18

=> Noted

[R2-2405403](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405403.zip) LTE RIL List Samsung discussion Rel-18

=> Noted

Miscellaneous Rapporteur corrections

[R2-2404791](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404791.zip) Miscellaneous corrections from ASN.1 review Q2 Ericsson CR Rel-18 38.331 18.1.0 4717 1 F NR\_MT\_SDT-Core, NR\_MBS-Core [R2-2403322](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403322.zip)

=> The CR is endorsed and will be further updated post meeting

**Multi/General ASN.1 RIL**

Rapporteur Proposed RIL Status

[R2-2404865](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404865.zip) RIL List for Multi/Gen issues Ericsson discussion Rel-18 TEI18

=> The following RILs are PropAgree: H071, E105, E159, E158, O310, E169, O318, O311

=> The following RILs are PropReject: S865, E242, E167, E172

=> Noted

[O319/O320]: SL feature co-configuration [Proposed status: Agree, Spec impact FFS] – [Impacted Features: Multi]

[R2-2404718](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404718.zip) [O319][O320] TP for SL features co-configuration OPPO discussion Rel-18 NR\_SL\_enh2-Core, NR\_SL\_relay\_enh-Core, NR\_pos\_enh2 Late

Proposal 1: R2 adopt the TP in the Annex to reflect the agreement on SL feature co-configuration.

- ZTE thinks that is is too complicate to clarify all these co-existance in ASN.1 and stage 2 would be sufficient. Qualcomm agrees with ZTE and the clarifications can be confusing. Ericsson agrees, these can be up to network implementation.

- Interdigital thinks that we can extend the existing co-existance text in stage 2 to cover this text. Qualcommm thinks that we can just do it in 300, but not in positioning stage 2.

=> Try to capture something simple in stage 2 in 38.300.

=> Noted

[R2-2404303](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404303.zip) [O319][S865]Discussion on issues related to multi-features vivo discussion

SL-U co-existence with SL-PRS transmission

*Proposal 3: RAN2 to decide the criteria for Tx UE to (re-)select a carrier for SL-PRS transmission at one time:*

*- by UE implementation;*

*- following the Tx carrier (re-)selection criteria for SL data transmission.*

- Vivo thinks that we should capture something in MAC CR. ZTE doesn’t think this is needed. SL PRS can only be transmitted in one carrier. Vivo would at least like to add a note to clarify which carrier is used for PRS transmission. ZTE thinks this is already clarified in SIB23 in field description there is only one entry.

=> Noted

[S020]: SS-RSRPRef after RACH-less [Proposed status: ToDo] – [Impacted Features: MULTI]

[R2-2405167](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405167.zip) [S020] Setting SS-RSRPref for relaxed measurements after RACHless mobilty Samsung discussion

=> SS-RSRPRef is set upon indication from the lower layers that the LTM cell switch or RACH-less handover is successfully completed [CB after some offline discussions on RedCap].

On whether RACHless is supported for ReDcap

- ZTE thinks that the TP is incomplete and similar text should be added to 5.7.4.4. Ericsson thinks that we should discuss this in RedCap, whether RACHless is supported for RedCap. Huawei thinks it would be good to clarify whether this feature can be supported for RedCap. ZTE thinks that we shouldn’t add a restriction and it should be linked to capability signaling. Oppo doesn’t think we should exclude as it is optional capability for the UE. Ericsson would like to avoid needed other changes and we should evaluate before we agree. Interdigital explains that when we agreed to generalize we also agreed to not optimize for features.

=> S020 status is updated to PropAgree and the change/TP will be merged with RACHless CR.

=> Noted

[S865]: MUSIM temporary capability restriction [Proposed status: Prop Reject] – [Impacted Features: MUSIM/Mob]

[R2-2404303](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404303.zip) [O319][S865]Discussion on issues related to multi-features vivo discussion

Proposal 7: [S865] is rejected.

=> Noted

**Other ASN.1 Issues**

[R2-2404517](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404517.zip) Further discussion on use of non-critical extensions in LTE SIBs Lenovo discussion Rel-18 LTE\_UAV\_enh-Core, IoT\_NTN\_enh-Core

*Proposal 1: Move the Rel-18 aerial-related extensions from CarrierFreqNR-r15 to CarrierFreqListNR-v1810. This correction can be added into the endorsed LTE UAV CR [2].*

- Qualcomm thinks that make sense

*Proposal 2: Define a new parallel list CarrierFreqListNR-v17xy on SIB24 level and add the Rel-17 ns-PmaxListNR-related extensions therein. This correction requires separate Rel-17/18 CRs [CB].*

- Qualcomm explains that this means we have to dummify R17 fields.

- Huawei, Ericsson, Nokia thinks we need to doublecheck

*Proposal 3: Define a non-critical extension ServingSatelliteInfo-v18xy on SIB31 level, and add the Rel-18 IoT NTN-related extensions therein. This correction can be added into the IPA IoT NTN CR [3].*

- Qualcomm doesn’t see the overhead but if we want to be consistent on how we do it then this could be ok. Lenovo agrees for Rel-18 this is not to improve overhead.

Proposal 4: Define a parallel list InterFreqCarrierFreqList-NB-v18xy on SIB5-NB level, and add the field satelliteAssistanceInfo-r18 into this new list element. This correction can be added into the IPA IoT NTN CR [3].

**Agreements*:***

1. Move the Rel-18 aerial-related extensions from CarrierFreqNR-r15 to CarrierFreqListNR-v1810. This correction can be added into the endorsed LTE UAV CR [2].
2. Define a non-critical extension ServingSatelliteInfo-v18xy on SIB31 level, and add the Rel-18 IoT NTN-related extensions therein. This correction can be added into the IPA IoT NTN CR [3].
3. Define a parallel list InterFreqCarrierFreqList-NB-v18xy on SIB5-NB level, and add the field satelliteAssistanceInfo-r18 into this new list element. This correction can be added into the IPA IoT NTN CR [3].

### 7.0.4 RACH-less HO

*Corrections to generalized RACH-less HO procedure, including NTN, mIAB, and overlapping sections of the LTM cell switch procedure*

*Tdoc limitation 1*

**Rapporteur CRs**

[R2-2404776](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404776.zip) Rapporteur correction for RACH-less HO [RACH-lessHO] Huawei, HiSilicon CR Rel-18 38.321 18.1.0 1845 - F TEI18

=> The CR is endorsed as a baseline

[R2-2404971](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404971.zip) Rapporteur corrections on RRC for the generalization of RACH-less [RACH-lessHO] Ericsson CR Rel-18 38.331 18.1.0 4706 1 F NR\_mobile\_IAB-Core, NR\_Mob\_enh2-Core, NR\_NTN\_enh-Core, TEI18 [R2-2403182](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403182.zip)

=> The CR is endorsed as a baseline

[R2-2405044](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405044.zip) RACH-less handover (38.306) Samsung CR Rel-18 38.306 18.1.0 1114 - F TEI18, NR\_Mob\_enh2-Core, NR\_NTN\_enh-Core, NR\_mobile\_IAB-Core

=> The CR is endorsed as a baseline

[R2-2405069](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405069.zip) RACH-less handover (38.331) Samsung CR Rel-18 38.331 18.1.0 4810 - F TEI18, NR\_Mob\_enh2-Core, NR\_NTN\_enh-Core, NR\_mobile\_IAB-Core

=> The CR is endorsed as a baseline

[R2-2405555](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405555.zip) RACH-less support generalization [RACH-lessHO] Nokia CR Rel-18 38.300 18.1.0 0799 3 B TEI18 [R2-2403588](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403588.zip)

- ZTE thinks that weed to clarify the early TA is only for LTM. Ericsson points out that for LTM it is already captured in another section in RACH.

=> check for early TA and whether the NR\_Mob\_enh2-Core is needed

=> The CR is endorsed as a baseline

* [AT126][012][RACHless] Stage 2 CR (Nokia)

Intended outcome: Agree to CR by email

Deadline: 05-24-24

**DRX and measurement gap behaviour during RACH-less**

*Configuration application during RACH-less HO*

[R2-2404666](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404666.zip) Remaining issues on RACH-less HO Apple discussion Rel-18 NR\_mobile\_IAB-Core, NR\_Mob\_enh2-Core, NR\_NTN\_enh-Core, TEI18

*Proposal 1: For CG RACH-less HO, UE is required to acquire the timing information which is needed for the CG transmission before initiating the initial UL transmission in target cell.*

*Proposal 2: Agree the following RRC TP to reflect proposal 1.*

*Proposal 3: When UE initiates NTN RACH-less HO, UE is required to acquire the SFN timing information of target PCell and apply the DRX configuration.*  ***[Can continue this in NTN Session]***

*Proposal 4: Agree the following RRC TP to reflect proposal 3.*

- LG thinks this is already clear. Apple wonders if the UE should acquire the SFN to apply the DRX.

=> Noted

[R2-2405074](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405074.zip) Handling of measurement gaps during RACH-less handover Samsung, Lenovo discussion

=> Noted

[R2-2405373](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405373.zip) DRX during RACH-less handover InterDigital discussion Rel-18 NR\_NTN\_enh-Core, NR\_mobile\_IAB-Core, TEI18

*Proposal 1: As in LTM, RAN2 confirms that the DRX configuration and measurement gap configuration may be applied during on-going RACH-less handover. But, as in the current MAC specification, during on-going terrestrial RACH-less handover, UE considers DRX in Active Time and monitors PDCCH during measurement gap. No specification impact.*

=> Noted

*Discussion*

- Asustek agrees with Samsung and Lenovo, but we need to remove “if there is an ongoing RACH-less LTM cell switch”. Qualcomm agrees

- Huawei think that the idea is to monitor PDCCH during RACHless so agree with Samsung’s proposal.

- NEC agrees with Interdigital as it is already clear. Apple indicates that their paper aligns the behavior between LTM. Huawei inidcates that if we go with Apple’s TP on issue three then this fixes the issue and we don’t need to specify when the UE applies measurement gaps.

*PDCCH monitoring during DRX/measurement gap*

[R2-2404666](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404666.zip) Remaining issues on RACH-less HO Apple discussion Rel-18 NR\_mobile\_IAB-Core, NR\_Mob\_enh2-Core, NR\_NTN\_enh-Core, TEI18

Proposal 5: During TN RACH-less HO and RACH-less LTM, in measurement gap if applied, UE monitors the PDCCH as specified in clause 5.7.

Proposal 6: During NTN RACH-less HO, in measurement gap if applied, UE monitors the PDCCH as specified in clause 5.7.

Proposal 7: Agree the following MAC TP to reflect proposal 5 and proposal 6.

[R2-2404688](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404688.zip) Open issues on RACH-less HO Qualcomm Incorporated discussion Rel-18 NR\_mobile\_IAB-Core, NR\_Mob\_enh2-Core, NR\_NTN\_enh-Core, TEI18

Proposal 2: Clarify the section 5.33 in TS 38.321 that “monitor the PDCCH as specified in TS 38.213” applies only when DG-based RACH-less HO is configured.

[R2-2404407](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404407.zip) Remaining issues in RACH-less HO procedure CATT discussion

Proposal 6: There is no spec impact needed to support the agreements reached in RAN2#125bis for DRX handling during RACH-less handover (i.e. already supported by the current Spec).

**Agreements**

1 During TN RACH-less HO and RACH-less LTM, in measurement gap if applied, UE monitors the PDCCH as specified in clause 5.7.

2 During NTN RACH-less HO, in measurement gap if applied, UE monitors the PDCCH as specified in clause 5.7.

3 Agree the MAC TP issue 3 in [R2-2404666](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404666.zip) to reflect above proposals. No need for RRC change for measurement gaps

4 Agree to RRC TP NOTE 2: The UE may omit reading the MIB if the UE already has the required timing information, or the timing information is not needed for random access or not needed for RACH-less initial UL transmission

**Corrections to RACH-less HO**

R2-2405997 Reply LS on parameters used for CG RACH-less Handover (R1-2405563; contact: Samsung) RAN1 LS in Rel-18 NR\_NTN\_enh-Core, NR\_mobile\_IAB-Core, TEI18 To:RAN2

R2-2406009 Reply LS on parameters used for CG RACH-less Handover from LTM perspective (R1-2405671; contact: Fujitsu) RAN1 LS in Rel-18 -NR\_mob\_enh2-Core To:RAN2

[R2-2404407](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404407.zip) Remaining issues in RACH-less HO procedure CATT discussion

Proposal 1: Remove the condition "PDCCH addressed to the MAC entity's C-RNTI has been received" for the new transmission case for the configured grant in RACH-less handover/LTM cell switch.

*Proposal 2: Define the following conditions for RACH-less handover successful completion:*

*- If DL assignment is for a new transmission or;*

*- If UL grant is for a new transmission on the same HARQ process.*

*Proposal 3: Replace the condition "PDCCH addressed to the MAC entity's C-RNTI has not been received for configured grant retransmission for RACH-less handover" with "the RACH-less handover procedure has not been completed successfully" in section 5.4.1.*

Proposal 4: Remove the condition "PDCCH addressed to the MAC entity's C-RNTI has not been received" in section 5.8.2.

Proposal 5: Adopt the TP in the Appendix.

**Agreements:**

1. Agree to TP: if the configured UL Grant is for the first PUSCH transmission during an on-going RACH-less handover procedure
2. Agree to TP: if there is an on-going RACH-less handover procedure:

consider the RACH-less handover to be successfully completed and indicate to upper layers ~~the successful completion of RACH-less handover.~~

3 Agree to the intention to: Replace the condition "PDCCH addressed to the MAC entity's C-RNTI has not been received for configured grant retransmission for RACH-less handover" with "the RACH-less handover procedure has not been completed successfully" in section 5.4.1.

[R2-2404777](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404777.zip) Discussion on the remaining issues RACH-less HO [RACH-lessHO] Huawei, HiSilicon discussion Rel-18 TEI18

Proposal1: Remove the UE procedure for RACH-less HO/LTM cell switch from the paragraph for subsequent initial UL transmission.

=> Noted

[R2-2405330](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405330.zip) Remaining issue on RACH-less handover generalization in MAC LG Electronics Inc. discussion Rel-18 NR\_Mob\_enh2-Core, TEI18 [R2-2403463](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403463.zip)

Proposal 1. SDT condition for retransmission of initial transmission using a configured grant is not merged with LTM and RACH-less HO, i.e.:

- For SDT, “if PDCCH addressed to the MAC entity's C-RNTI has not been received” is applied;

- For LTM and RACH-less HO, “if PDCCH addressed to the MAC entity's C-RNTI has not been received on the same HARQ process used for the first PUSCH transmission to the Serving Cell” is applied.

Proposal 2. RAN2 agree the TP in the Annex.

=> Noted

*targetNTA*

[R2-2405168](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405168.zip) RIL S268 Samsung discussion Rel-18

*Proposal 1: targetNTA-r18 is mandatory present when RACH-less HO configuration is provided. Remove the optional code for targetNTA-r18 in ASN.1.*

*Proposal 2: For generalized RACH-less HO, the N\_TA to be applied for target PTAG is either 0 or the N\_TA of a TAG indicated by a MCG TAG ID or a SCG TAG ID.*

=> Noted

[R2-2404688](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404688.zip) Open issues on RACH-less HO Qualcomm Incorporated discussion Rel-18 NR\_mobile\_IAB-Core, NR\_Mob\_enh2-Core, NR\_NTN\_enh-Core, TEI18

*Proposal 1: In the field description of targetNTA, clarify that the NTA value of the source corresponds to the source PTAG indicated by the tag-Id.*

- Ericsson clarifies that the TCI state already links the PTAG. Qualcomm would need to check for NTN as we don’t provide SSB index. .

=> Noted

[R2-2404972](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404972.zip) [S268][Q369] Avoid to optimize RACH-less for other Rel-18 features Ericsson discussion Rel-18 NR\_mobile\_IAB-Core, NR\_Mob\_enh2-Core, NR\_NTN\_enh-Core, TEI18

Proposal 1 Mark RIL S268 as “Rejected”, and the current text is kept and RAN2 does not optimize to handle specific cases such as mTRP.

Proposal 2 Mark RIL Q639 as “Rejected”, and RAN2 does not further optimize RACH-less for any other Rel-18 feature which is not mobile IAB or NTN

=> Noted

Agreements

1. Mark RIL S268 as “Rejected”, and the current text is kept and RAN2 does not optimize to handle specific cases such as mTRP
2. Mark RIL Q639 as “Rejected”, and RAN2 does not further optimize RACH-less for any other Rel-18 feature which is not mobile IAB or NTN [CB after checking that there really is no problem]

*Miscellaneous corrections (if time allows)*

[R2-2404777](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404777.zip) Discussion on the remaining issues RACH-less HO [RACH-lessHO] Huawei, HiSilicon discussion Rel-18 TEI18

=> Specify in the MAC - Only configured grant type 1 can be configured for RACH-less handover.

=> Noted

[R2-2405157](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405157.zip) Further considerations on capabilities related to generalization of RACH-less Samsung discussion Rel-18 TEI18

*Proposal 1: RAN2 to discuss whether inter-frequency, FR1-FR2 and FDD-TDD handovers should be possible for RACH-less.*

*Proposal 2: Rel-18 generalized RACH-less is limited to intra- and inter-frequency handovers. FR1-FR2 and FDD-TDD handovers are not supported.*

- Nokia is asking what this means FR1-FR2 and why we can’t support it in the case of 0 TA. Apple thinks it is not feasible to support FR1 and FR2 HO. Lenovo thinks that this is an optimization over an optimization.

*Proposal 3: A capability for inter-frequency RACH-less is introduced. FFS whether the capability applies to both CG and DG RACH-less.*

- CMCC thinks that if the UE supports intra frequency there should be no problem for UE to supporte interfrequency. Samsung thinks that for RACHless you would have to synchronize over another frequency. Ericsson thinks that there may some more testing but from the UE side there shouldn’t be a need. Nokia agrees with Ericsson.

- Vivo doesn’t think we need a separate capability as we can combine the different capabilities.

- ZTE wonders what does this 1 bit mean as the RACHless capability is per band. Vivo explains that it will indicate this bit if it support it in all the UE supported intra-frequency RACHless bands .

**Agreements:**

1 Rel-18 generalized RACH-less is limited to intra- and inter-frequency handovers. FR1-FR2 and FDD-TDD handovers are not supported.

2 A capability for inter-frequency RACH-less is introduced. If the UE indicates this capability it means it supports inter-frequency RACH-less on all the UE supported intra-frequency RACHless bands.

### 7.0.5 Other

*Including outcome of [POST125bis][003][RRC parameters] LS to RAN1 on RRC parameters (Ericsson)*

**Rapporteur Misc. Corrections CRs**

[R2-2404284](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404284.zip) Correcting Figures Nokia (Rapporteur) CR Rel-18 38.300 18.1.0 0859 - F TEI18, NR\_newRAT-Core

=> Need to update TEI code, updated bullets in summary of change, clauses impacted not completed, category should be D, add date, remove mark for ME and RAN (check).

=> The CR is agreed in [R2-2405859](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405859.zip) with changes above

R2-2405859 Correcting Figures Nokia (Rapporteur) CR Rel-18 38.300 18.1.0 0859 1 F NR\_newRAT-Core, TEI18

=> Agreed

[R2-2405359](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405359.zip) Miscellaneous corrections Samsung (Rapporteur) CR Rel-16 38.321 16.15.0 1810 1 F 5G\_V2X\_NRSL-Core [R2-2403038](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403038.zip)

=> The CR is agreed

[R2-2405360](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405360.zip) Miscellaneous corrections Samsung (Rapporteur) CR Rel-17 38.321 17.8.0 1811 1 F 5G\_V2X\_NRSL-Core, NR\_SL\_enh-Core, NR\_FeMIMO-Core [R2-2403039](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403039.zip)

=> The CR is agreed

[R2-2405361](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405361.zip) Miscellaneous corrections Samsung (Rapporteur) CR Rel-18 38.321 18.1.0 1812 1 F 5G\_V2X\_NRSL-Core, NR\_SL\_enh-Core, NR\_FeMIMO-Core, NR\_HST\_FR2\_enh-Core, NR\_MT\_SDT-Core [R2-2403040](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403040.zip)

=> The CR is agreed

**LS to RAN1 on RRC parameters**

[R2-2404782](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404782.zip) Draft Reply LS on Rel-18 higher-layers parameter list Ericsson LS out To:RAN1 Cc:RAN3, RAN4

- Lenovo thinks that we should refer to the latest LS 2710 that RAN1 sent

- Need to update [**R2-2405999**](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-24xxxxx.zip) **in the attachment section**

=> Review over email discussion and approve by email by end of week

* [AT126][023][RRC parameters] LS to RAN1 (Ericsson)

Intended outcome: Approve LS to RAN1 by email

Deadline: 05-24-24

R2-2405999 Reply LS on Rel-18 higher-layers parameter list RAN2 LS out Rel-18 NR\_MC\_enh-Core, NR\_MIMO\_evo\_DL\_UL-Core, NR\_pos\_enh2-Core, Netw\_Energy\_NR, NR\_cov\_enh2, NR\_XR\_enh-Core, NR\_Mob\_enh2, NR\_BWP\_wor-Core, NR\_NTN\_enh, IoT\_NTN\_enh-Core, NR\_SL\_enh2-Core, TEI18 To:RAN1 Cc:RAN3, RAN4

[R2-2404783](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404783.zip) ASN.1 names in RAN1 parameter list Ericsson discussion NR\_newRAT-Core

=> add a tab as a cover page to include tdoc number, meeting number, and a quick explanation what the sheet is about.

=> Revise in [R2-2405860](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405860.zip) with the changes above and agree to the content of the CR

R2-2405860 ASN.1 names in RAN1 parameter list Ericsson discussion NR\_newRAT-Core

**Other issues**

[R2-2405470](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405470.zip) ASN.1 Review Overhaul Nokia Corporation discussion Rel-19

Proposal 1: Discuss and consider a new ASN.1 and procedural text review procedure using Git version control.

=> The document will be treated in August

=> Noted

## 7.1 NR network-controlled repeaters

(NR\_NetConRepeater; leading WG: RAN1; REL-18; WID: [RP-230175](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_99/Docs/RP-230175.zip))

Time budget: 0 TU

Essential corrections only. For smaller corrections please contact CR editor / Rapporteur directly.

### 7.1.1 Organizational

Including incoming LSs and rapporteur inputs.

[R2-2405054](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2405054.zip) RILs conclusion for NCR ZTE Corporation (Rapporteur) report Rel-18 NR\_netcon\_repeater

[R2-2405055](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405055.zip) Miscellaneous RRC corrections for NCR ZTE Corporation (Rapporteur), Nokia CR Rel-18 38.331 18.1.0 4809 - F NR\_netcon\_repeater

[R2-2405263](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405263.zip) Clarification to Network-Controlled Repeaters Stage-2 description Ericsson, Nokia CR Rel-18 38.300 18.1.0 0808 3 F NR\_netcon\_repeater [R2-2403970](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403970.zip)

### 7.1.2 Others

[R2-2405679](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2405679.zip) 38.306 correction on reference for NCR Samsung CR Rel-18 38.306 18.1.0 1126 - F NR\_netcon\_repeater

* [AT126][015][NCR] Miscellaneous corrections (Apple)

Intended outcome: Discuss corrections submitted to AI 7.1 and agree to final CRs (if needed)

Deadline: 05-24-24

## 7.2 Expanded and improved NR positioning

(NR\_pos\_enh2; leading WG: RAN1; REL-18; WID: [RP-232670](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_101/Docs/RP-232670.zip))

Time budget: 0 TU

Tdoc Limitation: 3 tdocs

### 7.2.1 Organizational

Including incoming LSs and rapporteur inputs. CR rapporteurs are asked to continue maintaining an open issues list reflecting known issues to be handled during the maintenance phase.

[R2-2404104](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404104.zip) Reply LS on positioning MAC agreements (R1-2403536; contact: Huawel) RAN1 LS in Rel-18 NR\_pos\_enh2-Core To:RAN2

[R2-2404105](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404105.zip) Reply LS on SRS BW aggregation impact on other channels/signals (R1-2403539; contact: Huawei) RAN1 LS in Rel-18 NR\_pos\_enh2-Core To:RAN4 Cc:RAN2, RAN3

[R2-2404107](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404107.zip) LS on UE’s reporting SL PRS CBR measurement to gNB (R1-2403577; contact: Qualcomm) RAN1 LS in Rel-18 NR\_pos\_enh2-Core To:RAN2

[R2-2404111](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404111.zip) Reply LS on decisions on SLPP (R1-2403622; contact: vivo) RAN1 LS in Rel-18 NR\_pos\_enh2-Core To:RAN2

[R2-2404112](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404112.zip) Reply LS on questions on RAN1 parameter list (R1-2403636; contact: CATT) RAN1 LS in Rel-18 NR\_pos\_enh2-Core To:RAN2 Cc:RAN3, RAN4

[R2-2404117](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404117.zip) LS on PRS resource ID for bandwidth aggregation (R1-2403728; contact: ZTE) RAN1 LS in Rel-18 NR\_pos\_enh2-Core To:RAN2

[R2-2404118](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404118.zip) LS on the dci-FormatsSL and DCI format 3\_2 (R1-2403732; contact: Qualcomm) RAN1 LS in Rel-18 NR\_pos\_enh2-Core To:RAN2

[R2-2404125](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404125.zip) LS on SL positioning measurements (R4-2406386; contact: Huawei) RAN4 LS in Rel-18 NR\_pos\_enh2-Core To:RAN1, RAN2

[R2-2404140](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404140.zip) LS reply on LCS user plane connection binding to the UE (S2-2405797; contact: CATT) SA2 LS in Rel-18 5G\_eLCS\_Ph3 To:CT1 Cc:CT4, RAN2

[R2-2404304](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404304.zip) Discussion on RAN1 Reply LS regarding SLPP parameters vivo discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2404432](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404432.zip) LPP RIL list for Rel-18 Positioning CATT discussion Rel-18 NR\_pos\_enh2

[R2-2404433](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404433.zip) TPs for the Reply LS on questions on RAN1 parameter list CATT discussion Rel-18 NR\_pos\_enh2

[R2-2404434](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404434.zip) Corrections to TS 37.355 CATT CR Rel-18 37.355 18.1.0 0500 2 F NR\_pos\_enh2 [R2-2403818](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403818.zip)

[R2-2404611](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404611.zip) Discussion on reporting PRS resource ID in PRS BW aggregation ZTE Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2404769](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404769.zip) LS on SL positioning measurements Huawei, HiSilicon LS out Rel-18 NR\_pos\_enh2 To:RAN4

[R2-2404770](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404770.zip) Discussion on the reply LS for SL positoning measurement Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2

[R2-2405256](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405256.zip) Open issues list For RRC Positioning Ericsson discussion Rel-18

[R2-2405257](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405257.zip) Miscellaneous and RRC Positioning RILs based Corrections Ericsson CR Rel-18 38.331 18.1.0 4759 2 F NR\_pos\_enh2 [R2-2403819](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403819.zip)

[R2-2405258](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405258.zip) RIL For RRC Positioning Ericsson discussion Rel-18

### 7.2.2 Stage 2

Impact to 38.300, 37.340, and 38.305. For each specification, a single CR with miscellaneous corrections is requested from the CR rapporteur; minor and editorial issues should be coordinated with the rapporteur and merged into the miscellaneous CR. Larger issues can be discussed based on contributions.

This agenda item may be handled at lower priority.

[R2-2404435](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404435.zip) Corrections on TS 38.305 for CPP CATT, Nokia, NSB, Ericsson CR Rel-18 38.305 18.1.0 0165 - F NR\_pos\_enh2

[R2-2404765](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404765.zip) Remaining issues R18 POS stage2 for TS 38.300 Huawei, HiSilicon, VIVO discussion Rel-18 NR\_pos\_enh2

[R2-2404766](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404766.zip) Remaining issues R18 POS stage2 for TS 38.305 Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2

[R2-2405247](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405247.zip) Miscellaneous Stage 2 Corrections Qualcomm Incorporated CR Rel-18 38.305 18.1.0 0163 1 F NR\_pos\_enh2 [R2-2403188](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403188.zip)

[R2-2405259](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405259.zip) DRX and PRS alignment for positioning Ericsson CR Rel-18 38.305 18.1.0 0166 - F NR\_pos\_enh2

[R2-2405284](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405284.zip) Further clarifications for Positioning in RRC\_INACTIVE state Nokia discussion Rel-18 38.305 NR\_pos\_enh2-Core [R2-2403500](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403500.zip)

### 7.2.3 SLPP corrections

Impact to 38.355. A single CR with miscellaneous corrections is requested from the spec rapporteur; minor and editorial issues should be coordinated with the rapporteur and merged into the miscellaneous CR. Larger issues can be discussed based on contributions.

[R2-2404189](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404189.zip) [Post125bis][406][POS] 38.355 update Open Issue list Intel Corporation discussion Rel-18 NR\_pos\_enh2-Core

[R2-2404190](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404190.zip) Rapp022, Rapp023, Rapp026, Further Considerations on SLPP related open issues Intel Corporation discussion Rel-18 NR\_pos\_enh2-Core

[R2-2404191](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404191.zip) Miscellaneous corrections to SLPP specification Intel Corporation CR Rel-18 38.355 18.1.0 0003 2 F NR\_pos\_enh2-Core [R2-2403817](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403817.zip)

[R2-2404305](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404305.zip) Discussion on open issue of SLPP specification vivo discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2404518](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404518.zip) Text proposal on error messaging in SLPP Lenovo discussion Rel-18 NR\_pos\_enh2

[R2-2404612](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404612.zip) Discussion on remaining corrections in SLPP ZTE Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2404710](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404710.zip) Open SLPP issues Nokia France discussion Withdrawn

[R2-2404742](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404742.zip) Discussion on SLPP relative velocity Xiaomi discussion Rel-18 NR\_pos\_enh2

[R2-2404760](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404760.zip) CR 38.355 for SLPP capability Xiaomi CR Rel-18 38.355 18.1.0 0004 1 B NR\_pos\_enh2-Core [R2-2403977](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403977.zip)

[R2-2404763](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404763.zip) Discussion on the remaining issues for R18 SLPP Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2

[R2-2404869](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404869.zip) Discussion on the necessity of including the server UE positioning method in the discovery message OPPO discussion Rel-18 NR\_pos\_enh2

[R2-2405248](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405248.zip) Remaining issues for SLPP Qualcomm Incorporated discussion

[R2-2405268](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405268.zip) Open SLPP issues Nokia discussion Rel-18

[R2-2405390](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405390.zip) Discussion on SL-PRS Tx triggering by SLPP Samsung discussion Rel-18 NR\_pos\_enh2 Late

### 7.2.4 LPP corrections

Impact to 37.355. A single CR with miscellaneous corrections is requested from the CR rapporteur; minor and editorial issues should be coordinated with the rapporteur and merged into the miscellaneous CR. Larger issues can be discussed based on contributions.

[R2-2404235](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404235.zip) Discussion on the remaining LPP issues CATT discussion Rel-18 NR\_pos\_enh2

[R2-2404510](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404510.zip) [M001] Inclusion of PRU as an LPP endpoint MediaTek Inc., Ericsson draftCR Rel-18 37.355 18.1.0 F NR\_pos\_enh2-Core

[R2-2404595](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404595.zip) Miscellaneous corrections on LPP for Rel-18 positioning UE capabilities Xiaomi CR Rel-18 37.355 18.1.0 0503 1 F NR\_pos\_enh2-Core [R2-2403978](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403978.zip)

[R2-2404613](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404613.zip) Discussion on PRS bandwidth aggregation in LPP ZTE Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2404761](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404761.zip) Discussion on the remaining issues for R18 LPP Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2

[R2-2404870](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404870.zip) Discussion on no support of bandwidth aggregation by the DL-AOD OPPO discussion Rel-18 NR\_pos\_enh2

[R2-2404871](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404871.zip) Discussion on UE capability on bandwith aggregation positioning OPPO discussion Rel-18 NR\_pos\_enh2

[R2-2404872](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404872.zip) Discussion on DL RSCPD RSCP measurement on single DL PFL OPPO discussion Rel-18 NR\_pos\_enh2

[R2-2405261](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405261.zip) Removing Legacy terminology for Correction on Time Window Config and other CPP corrections and PRU Error cause Ericsson discussion Rel-18

### 7.2.5 RRC corrections

Impact to 38.331, except for UE capabilities. A single CR with miscellaneous corrections is requested from the CR rapporteur; minor and editorial issues should be coordinated with the rapporteur and merged into the miscellaneous CR. Larger issues can be discussed based on contributions.

[R2-2404236](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404236.zip) Activation of SRS when configured with validity area CATT discussion Rel-18 NR\_pos\_enh2

[R2-2404306](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404306.zip) [V800] Correction on UE not supporting NR sidelink positioning in limited service state vivo draftCR Rel-18 38.331 18.1.0 F FS\_NR\_pos\_enh2

[R2-2404614](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404614.zip) Discussion on remaining corrections in RRC ZTE Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2404764](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404764.zip) Discussion on the remaining issues for R18 RRC [H905][H920-921] Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2

[R2-2405103](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405103.zip) Discussion on the activation of the semi-persistent SRS of preconfigured SRS Xiaomi discussion

[R2-2405249](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405249.zip) Addition of SL DCI Formats and SL PRS CBR measurement Results Qualcomm Incorporated discussion

[R2-2405323](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405323.zip) Correction on srs-PosRRC-Inactive handling Google CR Rel-18 38.331 18.1.0 4822 - F NR\_pos\_enh-Core

### 7.2.6 MAC corrections

Impact to 38.321. A single CR with miscellaneous corrections is requested from the CR rapporteur; minor and editorial issues should be coordinated with the rapporteur and merged into the miscellaneous CR. Larger issues can be discussed based on contributions.

Including outcome of [Post125bis][401][POS] Aggregated SP-SRS activation/deactivation MAC CE (ZTE)

[R2-2404615](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404615.zip) Report of [Post125bis][401][POS] Aggregated SP-SRS activation deactivation MAC CE ZTE Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2404714](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404714.zip) Miscellaneous MAC issues Nokia France discussion Rel-18 Withdrawn

[R2-2404741](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404741.zip) Discussion on SL positioning MAC open issues Xiaomi discussion Rel-18 NR\_pos\_enh2

[R2-2404762](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404762.zip) Rapporteur MAC CR for R18 positioning Huawei, HiSilicon CR Rel-18 38.321 18.1.0 1844 - F NR\_pos\_enh2

[R2-2404767](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404767.zip) Discussion on the remaining isues for MAC for R18 POS Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2

[R2-2405260](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405260.zip) Addressing MAC open issues Ericsson discussion Rel-18

[R2-2405267](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405267.zip) Miscellaneous MAC issues Nokia discussion Rel-18

[R2-2405420](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405420.zip) Corrections for SL-PRS transmission and reception ASUSTeK discussion Rel-18 NR\_pos\_enh2

[R2-2405504](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405504.zip) MAC CE for activation/deactivation of aggregated SP SRS for positioning Samsung discussion Rel-18 NR\_pos\_enh2 Late

### 7.2.7 UE capabilities

Impact to 38.306 and capability-related impact to 38.331. A single CR with miscellaneous corrections is requested from the CR rapporteur; minor and editorial issues should be coordinated with the rapporteur and merged into the miscellaneous CR. Larger issues can be discussed based on contributions.

[R2-2404519](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404519.zip) Corrections on NR positioning capability signaling Lenovo discussion Rel-18 NR\_pos\_enh2

[R2-2404623](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404623.zip) Miscellaneous corrections for Rel-18 positioning UE capabilities Xiaomi CR Rel-18 38.331 18.1.0 4772 1 F NR\_pos\_enh2-Core [R2-2403971](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403971.zip)

[R2-2404624](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404624.zip) Miscellaneous corrections for Rel-18 positioning UE capabilities Xiaomi CR Rel-18 38.306 18.1.0 1090 1 F NR\_pos\_enh2-Core [R2-2403972](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403972.zip)

[R2-2404768](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404768.zip) Discussion on the remaining issues for UE capability Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2

### 7.2.8 Corrections to other specifications

Impact to any specifications not identified above.

## 7.3 Network energy savings for NR

(Netw\_Energy\_NR -Core; leading WG: RAN1; REL-18; WID: [RP-223540](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_98e/Docs/RP-223540.zip))

Time budget: 0 TU

Tdoc Limitation: 2 tdocs

### 7.3.1 Organizational

LS, workplan, email discussion etc

Spec rapporteurs are expected to submit additional contribution on open issues to conclude WI by December

[R2-2405135](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2405135.zip) Miscellaneous MAC corrections for network energy savings InterDigital CR Rel-18 38.321 18.1.0 1855 - F Netw\_Energy\_NR-Core

=> The CR is agreed

[R2-2405617](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405617.zip) NES WI RIL list Huawei, HiSilicon report Rel-18 Netw\_Energy\_NR-Core

[E305] There is currently no way to release referenceCell-r18. This could usually be solved by just changing the need code to “Need R”, but absence of this field implies in the default behaviour defined by RAN4. Hence, the easier could be to wrap this field on a SetupRelease structure.

=> The RIL305 is rejected

=> Noted

[R2-2405618](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405618.zip) Network energy savings for NR miscellaneous RRC CR Huawei, HiSilicon CR Rel-18 38.331 18.1.0 4692 2 F Netw\_Energy\_NR-Core [R2-2403998](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403998.zip)

=> The CR is endorsed and used as a baseline.

* [POST126][009][NES] RRC CR ()

Intended outcome: Agree to RRC CR with any additional changes needed and updated RIL List

Deadline: Short

[R2-2405659](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405659.zip) Discussion on UE capabilities for inter-band SSB-less SCell operation vivo, Ericsson, Huawei, HiSilicon, Apple, Xiaomi, CATT, ZTE Corporation, Sanechips discussion Rel-18

Observation 1. Due to the UE capability guideline on not to use a signaled band combination to derive supported features for higher order band combinations, the NW cannot configure CA of a higher-order BC while only configuring inter-band SSB-less operation of a lower-order BC when the UE only reports ‘supported’ for this lower-order BC .

Agreements

1. Instead of reporting ‘supported’ for a band within the BC to indicate this band can be configured as the reference band for all other bands within the BC, the UE optionally reports ‘referenceBand’ or ‘scellWithoutSSB’ for a band to indicate the support of inter-band SSB-less SCell operation.

2. The band indicated as ‘referenceBand’ can be configured as the reference band for all other band(s) indicated as ‘scellWithoutSSB’.

3. If the field scellWithoutSSB-InterBandCA-r18 is absent for a band, this band is not involved in the inter-band SSB-less SCell operation.

4. If inter-band SSB-less SCell operation is supported between two bands, it is understood that there is no direction between the two bands, which means that the network can configure either band as the reference band and the other band as the SSB-less band.

*Proposal 5a. RAN2 to discuss whether to keep the flexibility on the support of inter-band SSB-less SCell operations for different independent groups of bands.*

*Proposal 5b. If RAN2 confirms the support of inter-band SSB-less SCell operations for different independent groups of bands, TP2 is adopted for the inter-band SSB-less SCell UE capability signalling. Otherwise, TP1 is adopted.*

[R2-2405304](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405304.zip) UE Capability for Inter-band SSB-less CA Qualcomm Incorporated discussion Rel-18

Observation 1: RAN4 wording allows indicating multiple bands as “reference” within the same interband SSB-less CA band grouping, i.e., no restriction that one band must be indicated as “reference” with other bands indicated as SSB-less.

Observation 2: Restricting “reference” value indication to a single band within inter-band CA grouping makes capability signalling impractical since UE must report up to N feature sets for N Band Combinations to indicate whether each band can be used as reference for other SSB-less bands.

*Proposal 1: If RAN2 agrees on using the two values {reference, SSB-less} to indicate capability within Interband SSB-less CA band grouping, there are no restrictions on how many bands the UE can indicate as ‘reference’.*

*Proposal 2: RAN2 capability framework need not support multiple independent SSB-less band CA groupings within the same BC. This can be confirmed with RAN4 via an LS.*

- Huawei doesn’t think this is a new concept and it is not that complicated.

- CMCC supports Vivo’s proposal

- MEdiatek doesn’t see a requirement for groups. Mediatek is also concerned about complexity.

After CB

**Compromise solution. CR to be agreed by email**

If scheme1 (to be named) is indicated, the band indicated as ‘scheme1’ can be configured as either the reference band or SSB-less band.

If scheme2 (to be named) is indicated, the band indicated as ‘referenceBand1’ can be configured as the reference band for all other band(s) indicated as ‘scellWithoutSSB1’, and the band indicated as ‘referenceBand2’ can be configured as the reference band for all other band(s) indicated as ‘scellWithoutSSB2’.

If the field scellWithoutSSB-InterBandCA-r18 is absent for a band, this band is not involved in the inter-band SSB-less SCell operation.

In a band combination, only scheme1 or scheme2 is indicated.

* [POST126][010][NES] UE cabilities (Vivo)

Intended outcom: endorse CRs

Deadline: one week email discussion

R2-2405949 Summary of offline discussion for UE capabilities on supporting multiple inter-band SSB-less SCell groups and Proposed Way-forward vivo discussion Rel-18 Netw\_Energy\_NR-Core

* [AT126][011][NES] 38.300 (Ericsson)

Intended outcome: agree to 38.300 by email

Deadline: 05-24-24

R2-2405959 Miscellaneous stage-2 corrections for network energy savings Ericsson CR Rel-18 38.300 18.1.0 0870 - F Netw\_Energy\_NR-Core

### 7.3.2 User Plane

**Coexistence of Cell DTX/DRX and LTM**

[R2-2404946](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404946.zip) Coexistence of Cell DTXDRX and RACH-less LTM CATT discussion Rel-18 Netw\_Energy\_NR-Core

Proposal 1: The following two options should be considered, and for simplicity, option 1 should be preferred:

Option 1: Rely on the network implementation, e.g., cellDTXDRXactivationStatus-r18 of target cell is set to deactivated when the target cell sends the RRCReconfiguration message including the LTM candidate configurations to the source cell, regardless of whether the target cell activates Cell DTX/DRX.

Option 2: Enhance Cell DTX/DRX, allowing UE to monitor PDCCH and deliver configured uplink grant during Cell DTX/DRX non-active period when there is an ongoing RACH-less LTM cell switch.

[R2-2405616](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405616.zip) Discussion on the coexistence of cell DTX/DRX and RACH-less LTM Huawei, HiSilicon, InterDigital discussion Rel-18 Netw\_Energy\_NR-Core

Observation 1: The target cell operating with Cell DTX/DRX can reject the LTM configuration request from source if it knows the RACH-less LTM requirements cannot be satisfied.

Observation 2: It can be left for NW implementation to not configure or activate cell DTX/DRX and use RACH-less LTM simultaneously, i.e. cell DTX/DRX and RACH-less LTM are not configured together or their coexistence is handled by NW implementation.

Proposal 1: The coexistence of cell DTX/DRX and LTM can be handled by the current specifications without spec changes. No optimisation of cell DTX/DRX and RACH-less LTM is needed.

[R2-2404632](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404632.zip) Remaining issue on coexistence between Cell DTX/DRX and LTM Apple discussion Rel-18 Netw\_Energy\_NR-Core

Observation 1: The key issue of the FFS is that the UE must acquire target SFN before applying Cell DTX/DRX, but TS 38.331 specified that the UE applies radio resource configurations with target cell SFN after completion of LTM.

Observation 2: In both RACH-less HO common session and LTM session of RAN2#125b, it was agreed that UE C-DRX may be applied before successful completion, and the UE monitors PDCCH during on-going RACH-less procedure, despite UE C-DRX.

Observation 3: Besides spec change on Cell DTX to allow the UE to monitor PDCCH irrespective of Cell DTX, the spec change on Cell DRX is also needed because the UE is expected to transmit the first PUSCH without UL grant in target cell, despite Cell DRX.

Proposal 1: RAN2 confirm that the UE may apply Cell DTX/DRX during on-going RACH-less LTM cell switch.

Proposal 2: Same as conclusion of RACH-less LTM and RACH-less HO for TN network, the UE regards the on-going LTM cell switch procedure as active time of Cell DTX/DRX.

Proposal 3: RAN2 agree the TP in Appendix to capture that active time of Cell DTX/DRX includes the on-going RACH-less LTM cell switch.

[R2-2404364](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404364.zip) Co-existence of LTM and NES Ericsson discussion

Proposal 1 In order to support the co-existence of LTM and cell DTX/DRX, the active time of a UE for Serving cells in a DTX group includes the time while there is an ongoing RACH-less LTM cell switch.

Proposal 2 If co-existence of LTM and cell DTX/DRX is not supported, this restriction should be captured in 38.300.

[R2-2405586](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405586.zip) Coexistence of Cell DTXDRX and RACH-less LTM Sharp discussion

Observation 1: There is NO “active time” definition for Cell DTX/DRX, and cell DTX/DRX “active period” doesn’t include exceptional cases.

Proposal 1: Support coexistence of Cell DTX/DRX and RACH-less LTM cell switch.

Proposal 2: If there is an ongoing RACH-less LTM cell switch or RACH-less handover, UE monitors PDCCH regardless of Cell DTX.

Proposal 3: If there is an ongoing RACH-less LTM cell switch or RACH-less handover, UE can deliver configured uplink grant regardless of Cell DRX.

**Agreements**

Understanding is that an LTM target is not a serving cell and hence it will not apply CELL DTX/DRX until the switch is completed. Nothing is optimized or specified for RACHless

**Clarifications**

[R2-2404945](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404945.zip) Discussion on the unaligned SFN for Cell DTXDRX in MAC CATT discussion Rel-18 Netw\_Energy\_NR-Core

Proposal: In case of unaligned SFN across carriers in a cell group, the SFN of the SpCell is used to calculate the Cell DTX/DRX duration.

- LG doesn’t think we need that change as each serving cell would look for it’s own time, as DTX is executed per serving cell. Apple doesn’t think this is even in scope.

- Nokia wonders if the UE knows the SFN of the SCells. LG thinks that the UE knows the SFN of the serving cell. Nokia explains that the SFN is in the MIB. LG and Lenovo explains that the UE has to read the MIB for synchornization purposes. Samsung thinks that there is no requirement to read the SFN in the MIB

- Xiaomi aks if we can do CELL DTX/DRX with SSBless

=> Noted

**Stage-2**

[R2-2405590](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405590.zip) CellDTRX-RNTI description in TS 38.300 Samsung discussion Rel-18 Netw\_Energy\_NR-Core

Proposal. A description of CellDTRX-RNTI is added in clause 8 of TS 38.300. The corresponding TP is added in the Annex.

[R2-2404830](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404830.zip) Coexistence of Cell DTXDRX and RACH-less LTM Rakuten Mobile, Inc discussion Rel-18

[R2-2405045](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405045.zip) Coexistence of Cell DTX/DRX and RACH-less LTM OPPO discussion Rel-18 Netw\_Energy\_NR

[R2-2405288](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405288.zip) Discussion on coexistence of Cell DTX/DRX and RACH-less LTM Fujitsu discussion Rel-18 Netw\_Energy\_NR\_enh-Core

[R2-2405292](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405292.zip) Coexistence of Cell DTXDRX mechanism and RACH-less LTM LG Electronics Inc. discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2405488](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405488.zip) Coexistence issue for NES and RACH-less Xiaomi discussion Rel-18 Netw\_Energy\_NR-Core [R2-2402846](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402846.zip)

### 7.3.3 Control Plane corrections

**TRS Meas Capability for SSB-less SCell Activation:**

[R2-2404664](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404664.zip) Discussion on remaining issue on UE capability of aperiodicCSI-RS-FastScellActivation Apple discussion Rel-18 Netw\_Energy\_NR-Core

*Proposal 1: On UE capability aperiodicCSI-RS-FastScellActivation-r17, it is applied to intra-band contiguous SSB-less SCell activation. RAN2 wait RAN4 conclusion on whether it is also applied to intra-band non-contiguous SSB-less SCell activation.*

=> Noted

[R2-2405046](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405046.zip) Discussion on the TRS meas capability for intra-band SSB-less CA OPPO discussion Rel-18 Netw\_Energy\_NR

[*Proposal 1 Not consider the case of TRS-based intra-band non-contiguous SSB-less SCell activation in Rel-18 NES.*](#_Toc166180259)

=> Noted

=> RAN2 will not consider the case of TRS-based intra-band contiguous and non-contiguous SSB-less SCell activation in Rel-18 NES

**Clarification on SSB-less Configuration:**

[R2-2404827](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404827.zip) Clarification on SSB-less configuration for R18 UE Xiaomi, China Unicom, CMCC, CATT, Lenovo, Ericsson, Sharp, Spreadtrum, Fujitsu, Nokia, Nokia Shanghai Bell, Samsung, NEC, China Telecom, LG electronics Inc discussion Rel-18

Observation:

For R15 SSB-less SCell, the absoluteFrequencySSB in FrequencyInfoDL is optional and the UE obtains timing reference from the intra-band SpCell or intra-band SCell.

For R18 SSB-less SCell, the absoluteFrequencySSB in FrequencyInfoDL is optional and the UE obtains timing reference from reference cell if referenceCell is configured, otherwise from default cell as defined in RAN4.

*Understanding 1.1: The UE will try to search for intra-band activated serving cell as reference cell as R15 first, if no intra-band serving cell found, then UE will try to search for inter-band default cell as reference cell.*

*Understanding 1.2: The UE will try to search for inter-band default cell as reference cell first, if no default cell found, then UE will try to search for intra-band activated serving cell as reference cell as R15.*

*Understanding 2: The UE will try to search for intra-band activated serving cell as reference cell as R15.*

*Understanding 3: The UE will try to search for inter-band default cell as reference cell*

*Understanding 4: It is up to UE implementation if there is no performance difference between option 1.1 and option 1.2.*

*Understanding 5: One indication is configured in FrequencyInfoDL to indicate the UE will follow R15 behavior or R18 default cell behavior (e.g., one explicit indication or wrap referenceCell field in a setupRelease structure, as suggested in E305).*

*Understanding 6: It is up to network to ensure, there is no such configuration confusion for UE.*

- Vivo and Qualcomm think that RAN4 should discuss this. Xiaomi thinks that this is a configuration issue and not RAN4

- Vivo and Samsung think understanding 2 is correct.

- Fujitsu thinks that this can be handled by network implementation, understanding 6. LG agrees.

=> Noted

Proposal 1: RAN2 is kindly asked to confirm which understanding is correct due to the configuration confusion issue.

Proposal 2: If RAN2 cannot reach a consensus on the configuration confusion issue, it is proposed to send LS to RAN4 to confirm following issues:

Q1: Whether the UE may find an intra-band serving cell in R18 default cell case?

Q2: Whether there is performance difference between option 1.1 and option 1.2?

**Stage-2**

[R2-2405670](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405670.zip) Clarification on public safety related service handling in 38.300 ZTE Corporation, Sanechips discussion Rel-18 Netw\_Energy\_NR-Core

=> Agree to remove “(e.g. MPS or MCS)” in 38.300 for the public safety related service handling in NES.

=> Noted

[R2-2404365](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404365.zip) Clarification on cellDTRX-RNTI Ericsson discussion

=> Agree to intention, but use Samsungs wording at the end and can clarify further

=> noted

## 7.4 Further NR mobility enhancements

(NR\_Mob\_enh2-Core; leading WG: RAN2; REL-18; WID:RP-233970)

Time budget: 0 TU)

Tdoc Limitation: 4 tdocs (if you want to input beyond the tdoc limitation, please cooperate with CR Rapporteurs).

### 7.4.1 Organizational

Including LSs.

Including outcome of [Post125bis][519][R18 Mob] Power Control Parameters after LTM cell switch (Fujitsu), with Scope: Collect RAN2 input in order to determine impacts and make decision as requested in R1 LS R1-2403683.

[R2-2404115](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404115.zip) "LS on the identification of the power control parameters after LTM cell switch ( R1-2403683; contact: Fujitsu)" RAN1 LS in Rel-18 NR\_Mob\_enh2-Core To:RAN2

[R2-2404126](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404126.zip) Reply LS on n-TimingAdvanceOffset for PDCCH order RACH (R4-2406444; contact: Apple) RAN4 LS in Rel-18 NR\_Mob\_enh2-Core To:RAN2 Cc:RAN1

[R2-2404619](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404619.zip) Summary of [Post125bis][519][R18 Mob] Power Control Parameters after LTM cell switch (Fujitsu) Fujitsu discussion Rel-18 NR\_Mob\_enh2-Core Late

[R2-2404620](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404620.zip) [Draft] Reply LS on the identification of the power control parameters after LTM cell switch Fujitsu LS out Rel-18 NR\_Mob\_enh2-Core To:RAN1 Late

### 7.4.2 Stage-2 Corrections

Corrections to 38300 (MTK) and 37340 (ZTE) and stage-2 centric issues (including tdocs on stage-2 centric issue that also impact other TS). Preferably work with CR Rapporteurs for Stage-2 corrections instead of separate CRs.

[R2-2404607](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404607.zip) Stage-2 corrections on LTM Mediatek Inc. CR Rel-18 38.300 18.1.0 0842 2 F NR\_Mob\_enh2-Core [R2-2404009](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404009.zip)

[R2-2405058](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405058.zip) Miscellaneous corrections for mobility enhancements ZTE Corporation CR Rel-18 37.340 18.1.0 0392 - F NR\_Mob\_enh2-Core

[R2-2405527](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405527.zip) Discussion on measurement gaps for LTM in NR-DC Samsung discussion

### 7.4.3 RRC Corrections

RRC corrections and Control Plane Centric Issues (including tdocs on control plane centric issue that also impact other TS). Including ASN.1 review issues and their resolutions. For RRC issues, please input to ASN.1 review rather than just providing a tdoc.

Including outcome of [Post125bis][510][R18Mob] RRC CR (Ericsson),

[R2-2404967](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404967.zip) Miscellaneous corrections on further mobility enhancements in NR Ericsson CR Rel-18 38.331 18.1.0 4705 1 F NR\_Mob\_enh2-Core [R2-2403174](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403174.zip)

[R2-2404970](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404970.zip) RILs conclusions for feMob Ericsson discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2405482](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405482.zip) [X131] Discussion on the SFN acquisition for LTM Xiaomi discussion Rel-18 NR\_Mob\_enh2-Core

#### 7.4.3.1 L1L2 Triggered Mobility

[R2-2404298](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404298.zip) Candidate TCI states issues in LTM and LS from RAN1 MediaTek inc. discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2404300](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404300.zip) LTM with 2TA co-existance MediaTek inc. discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2404437](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404437.zip) Remaining issues on s-Measure and recovery after RLF due to RLC retransmission vivo discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2404438](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404438.zip) [E231][E240]RRC issues on LTM vivo discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2404781](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404781.zip) Discussion on PDCP SN gap at LTM fast recovery NTT DOCOMO, INC. discussion Rel-18

[R2-2404804](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404804.zip) [B123]Coexistence of LTM recovery and CHO recovery Lenovo discussion Rel-18

[R2-2404805](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404805.zip) [B120][B121]Coexistence of LTM and conditional reconfiguration Lenovo discussion Rel-18

[R2-2404828](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404828.zip) [G125] Discussion on LTM cell switch execution during fast MCG recovery procedure Google Inc. discussion Rel-18 38.331 NR\_Mob\_enh2-Core [R2-2403454](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403454.zip)

[R2-2404968](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404968.zip) [E400] Issues on INM signalling and power control parameters for LTM Ericsson discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2405059](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405059.zip) Discussion on remaining issues for LTM ZTE Corporation discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2405144](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405144.zip) On Early decoding, power control for UL transmission after LTM switch and coexistence with NES Nokia discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2405159](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405159.zip) On the selection of RA preambles for LTM recovery [N161] Nokia discussion Rel-18 NR\_Mob\_enh2-Core Withdrawn

[R2-2405216](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405216.zip) [H094][H095] Issues on LTM-TCI-Info Huawei, HiSilicon discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2405467](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405467.zip) RLC entity handling for IAB/mIAB during LTM execution Samsung discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2405595](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405595.zip) Control plane centric issues for LTM Langbo discussion Rel-18 38.331 NR\_Mob\_enh2-Core

[R2-2405661](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405661.zip) On the selection of RA preambles for LTM recovery [N161] Nokia discussion Rel-18

#### 7.4.3.2 Conditional Mobility

Includes both Subsequent CPAC and CHO including target MCG and candidate SCGs for CPC CPA in NR-DC.

[R2-2404412](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404412.zip) Discussion on L2 reset for SCPAC execution OPPO, NEC discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2404415](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404415.zip) Discussion on remaining issues for SCPAC execution OPPO discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2404439](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404439.zip) [V138] Discussion on simultaneous evaluation for both condExecutionCond and condExecutionCondSCG vivo, CATT, OPPO, LG Electronics discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2404483](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404483.zip) Open issues for subsequent CPAC Ericsson discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2404605](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404605.zip) [E220] Issue on the presence of sk-counter in SCPAC CATT discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2404606](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404606.zip) Remaining SCPAC issues CATT discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2405060](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405060.zip) [Z062][Z063][Z064] Remaining issues for subsequent CPAC ZTE Corporation discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2405190](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405190.zip) On MCG Reset handling for SCPAC in MN-Format Nokia discussion

[R2-2405217](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405217.zip) [C147] MAC behaviours in SCPAC Huawei, HiSilicon discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2405386](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405386.zip) [C147] MCG MAC reset upon SCPAC execution CATT discussion NR\_Mob\_enh2-Core

#### 7.4.3.3 Reporting of Idle Inactive and reselection measurements

[R2-2404379](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404379.zip) Discussion on eEMR SCell setup delay vivo discussion

[R2-2404484](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404484.zip) Discussion on early measurements enhancements Ericsson discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2405061](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405061.zip) Remaining issues on eEMR and IMR ZTE Corporation discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2405218](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405218.zip) [H146][H147][H166][H167][H168] Issues on EMR and reporting of cell reselection results Huawei, HiSilicon discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2405561](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405561.zip) UE capability for EMR and reselection measurements Nokia draftCR Rel-18 38.331 18.1.0 NR\_Mob\_enh2-Core

[R2-2405562](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405562.zip) UE capability for EMR and reselection measurements Nokia draftCR Rel-18 38.306 18.1.0 NR\_Mob\_enh2-Core

[R2-2405563](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405563.zip) EMR and reselection measurements details Nokia discussion Rel-18 NR\_Mob\_enh2-Core

### 7.4.4 MAC Corrections

MAC corrections and User Plane Centric Issues (including tdocs on user plane centric issue that also impact other TS)

[R2-2404229](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404229.zip) MAC corrections for LTM Samsung discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2404413](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404413.zip) Discussion on remaining MAC issues for LTM OPPO discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2404414](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404414.zip) Issues on supporting MIMO 2TA for LTM OPPO discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2404440](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404440.zip) Discussion on MAC open issue for LTM vivo discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2404771](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404771.zip) "Linkage between candidate TCI states and TCI states inside candidate cell configuration" Panasonic discussion

[R2-2404920](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404920.zip) Discussion on TCI state in LTM command MAC CE NEC discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2404969](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404969.zip) Remaining MAC issues for LTM Ericsson discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2405160](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405160.zip) Remaining MAC issues for LTM Nokia discussion Rel-18 NR\_Mob\_enh2-Core Withdrawn

[R2-2405181](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405181.zip) Consideration On Remaining Issues For LTM ZTE Corporation discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2405219](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405219.zip) Miscellaneous corrections for further mobility enhancements Huawei, HiSilicon CR Rel-18 38.321 18.1.0 1817 2 F NR\_Mob\_enh2-Core [R2-2404023](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404023.zip)

[R2-2405220](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405220.zip) MAC remaining issues for LTM Huawei, HiSilicon discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2405331](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405331.zip) UL grant handling during RACH-less LTM cell switch LG Electronics Inc, Lenovo, ZTE Corporation discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2405421](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405421.zip) Discussion on fallback RACH for LTM ASUSTeK discussion Rel-18 38.331 NR\_Mob\_enh2-Core [R2-2402579](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402579.zip)

[R2-2405422](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405422.zip) Discussion on LTM candidate configuration for different CGs ASUSTeK discussion Rel-18 38.321 NR\_Mob\_enh2-Core [R2-2402580](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402580.zip)

[R2-2405663](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405663.zip) Remaining MAC issues for LTM Nokia discussion Rel-18

### 7.4.5 UE capabilities

Including outcome of [Post125bis][516][R18Mob] UE cap CRs (Intel)

[R2-2404272](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404272.zip) Draft 306 CR for UE capability for feMob Intel Corporation draftCR Rel-18 38.306 18.1.0 NR\_Mob\_enh2-Core

[R2-2404273](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404273.zip) Draft 331 CR for UE capability for feMob Intel Corporation draftCR Rel-18 38.331 18.1.0 NR\_Mob\_enh2-Core

[R2-2404299](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404299.zip) LTM UE capabilities MediaTek inc. discussion Rel-18 NR\_Mob\_enh2-Core

## 7.5 XR Enhancements for NR

(NR\_XR\_enh-Core; leading WG: RAN2; REL-18; WID: [RP-230786](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_99/Docs/RP-230786.zip))

Time budget: 0 TU

Tdoc Limitation: 2 Tdocs

### 7.5.1 Organizational

Including LSs, any rapporteur inputs (e.g. work plan, SA2/SA4 progress reports) and running CRs (currently endorsed CRs exist fo Stage-2 (Nokia), MAC (Qualcomm), PDCP (LGE), RRC (Huawei) and RLC (vivo))

**Stage 2 corrections**

[R2-2404286](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404286.zip) Miscellaneous XR corrections Nokia (Rapporteur) CR Rel-18 38.300 18.1.0 0860 - F NR\_XR\_enh-Core

- Fujitsu asks where the SN gap reporting part

* [AT126][016][XR] Stage 2 CR (Nokia)

Intended outcome: Agree to CR by email

Deadline: 05-24-24

R2-2405934 Miscellaneous XR corrections Nokia (Rapporteur) CR Rel-18 38.300 18.1.0 0860 1 F NR\_XR\_enh-Core

**RAN3 overview**

[R2-2404285](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404285.zip) RAN3 Overview Nokia, Qualcomm (Rapporteurs) discussion Rel-18 NR\_XR\_enh-Core

=> Noted

**MAC corrections**

[R2-2404172](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404172.zip) Corrections for XR services Qualcomm Incorporated CR Rel-18 38.321 18.1.0 1833 - F NR\_XR\_enh-Core

- The CR will be used as a baseline and will be revised with agreements from this meeting

* [POST126][017][XR] CR to 38.321 (Qualcomm)

Intended outcome: Agree to CR

Deadline: Short

**RRC corrections**

[R2-2405643](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405643.zip) RRC corrections for XR Huawei, HiSilicon CR Rel-18 38.331 18.1.0 4700 2 F NR\_XR\_enh-Core [R2-2404008](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404008.zip)

- The CR will be used as a baseline and will be revised with agreements from this meeting

* [AT126][018][XR] CR to 38.331 (Huawei)

Intended outcome: Agree to CR by email

Deadline: 05-24-24

**RIL resolutions**

[R2-2405644](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405644.zip) RIL resolutions for XR Huawei, HiSilicon discussion Rel-18 NR\_XR\_enh-Core [R2-2404036](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404036.zip)

=> B020 is agreed

=> Noted

**Capability spec corrections**

[R2-2404524](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404524.zip) UE Capability on PDCP SN Gap Reporting Intel Corporation draftCR Rel-18 38.306 18.1.0 NR\_XR\_enh-Core

- Futurewei thinks that we should change the IE name as it is confusing and similar to PCPD one. Huawei thinks we can keep the name here but update it in RRC.

=> The CR is endorsed and will be merged in the Mega CR

[R2-2404525](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404525.zip) UE Capability on PDCP SN Gap Reporting Intel Corporation draftCR Rel-18 38.331 18.1.0 NR\_XR\_enh-Core

=> The CR is endorsed and will be merged in the Mega CR

### 7.5.2 RRC corrections

Including RIL and UE capabilties

**TP correction from LCG to LCH for DSR trigger**

[R2-2404324](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404324.zip) Correction on DSR Trigger Modelling CATT discussion Rel-18 NR\_XR\_enh-Core

Proposal 1: Modify the DSR trigger from LCG to LCH in TS38.300.

Proposal 2: Modify the DSR trigger from LCG to LCH in TS38.331.

- Nokia reminds company to provide editorial directly to rapporteur

- Xiaomi and LG think the correction is ok in 38.300 but in 38.331 it is not needed. Huawei suggests that in the field description we mention it is the logical channel belong to that group.

=> The change will be done by rapporteurs in 38.300 and 38.331 will in the field description mention it is the logical channel belong to that group

=> Noted

### 7.5.3 User plane corrections

No documents should be submitted to 7.5.3. Please submit to 7.5.3.x

#### 7.5.3.1 MAC corrections

**DRX\_SFN\_COUNTER**

[R2-2404547](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404547.zip) Open issues for DRX\_SFN\_COUNTER for XR          ZTE Corporation, Sanechips

Proposal 1: The DRX\_SFN\_COUNTER is initialized in the first symbol of the slot immediately after the first PUSCH transmission which contains the response message of the RRC (re-) configuration message (i.e. point of initialization is same as the one captured in the current MAC spec)

Proposal 2: If, the first symbol of the slot immediately after the first PUSCH transmission which contains the response message of the RRC (re-) configuration message falls in the first part of the HFN, the DRX\_SFN\_COUNTER shall be initialized to 0. Otherwise, it shall be initialized to 1.

[R2-2404173](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404173.zip) Discussion on DRX\_SFN\_COUNTER           Qualcomm Incorporated

Proposal 1. UE determines the initial value of DRX\_SFN\_COUNTER based on the time when a HARQ ACK for the RRC message containing a DRX re-/configuration is sent. UE applies the new DRX configuration when it decodes the RRC message (as in legacy).

[R2-2404513](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404513.zip) DRX SFN counter initialization Ericsson discussion Rel-18 NR\_XR\_enh-Core

Proposal 1 Adopt the TP above for initializing the DRX\_SFN\_COUNTER.

[R2-2405047](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405047.zip) Discussion on the DRX\_SFN\_COUNTER initialization OPPO discussion Rel-18 NR\_XR\_enh-Core

Proposal 1 Update the MAC spec to initialize DRX\_SFN\_COUNTER upon the corresponding RRC (re-)configuration message for DRX being received.

[R2-2404772](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404772.zip) Remaining issues for DRX operations for XR Huawei, HiSilicon discussion Rel-18 NR\_XR\_enh-Core

Proposal 1: Remove the sentence “in the first symbol of the slot immediately after the first PUSCH transmission which contains the RRCReconfigurationComplete message of the RRC (re-) configuration as specified in TS 38.331 [5]” from the procedure text. Adopt the TP for TS 38.321 for DRX\_SFN\_COUNTER initialization.

Discussion

- Nokia thinks that we don’t need a specific timing and thinks we should go with Huawei’s proposal. Oppo, Xiaomi, LG agree.

- Samsung thinks that ZTE and Ericsson’s make sense as it should be done after synchronization with target cell.

- ZTE thinks that the problem is that the processing time is unknown. We are leaving it to UE implementation that may cause problem so it would be good to make the point very clear.

- Qualcomm thinks that there is still ambiguity when the RRC message was received and whether the UE and the NW are aware.

- LG thinks that the UE applies the configuration when the RRC configuration message is received and HW proposal addresses this. Huawei thinks that when the network would send the message and then increment it by one and so would the UE.

- Samsung is concerned with the HO case. ZTE is not concerned with the HO case. Xiaomi explains that we agree that the UE would initialize when it acquires a new SFN in target cell.

- Lenovo thinks that we never specify small timing issues and ambiguities.

- ZTE explains that the network won’t know that the UE applied the configuration until it receives the RRC response.

- Huawei explains that one problem is that the UE would apply part of the configuration in one point and another one at another point. ZTE thinks that the configuration would apply at the same time, it is just about the counter managing and we initialize counter at different points.

- Intel suggests to add a clarification for the HO scenario.

=> Remove the sentence “in the first symbol of the slot immediately after the first PUSCH transmission which contains the RRCReconfigurationComplete message of the RRC (re-) configuration as specified in TS 38.331 [5]” from the procedure text. Adopt the TP for TS 38.321 for DRX\_SFN\_COUNTER initialization. FFS HO case

**DRX formula for non-integer**

[R2-2404889](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404889.zip) Change the formula of non-integer short DRX cycle NEC, Xiaomi, Ericsson, Lenovo, CATT, LGE, vivo, Nokia, Nokia Shanghai Bell, CMCC, MediaTek Inc discussion Rel-18 NR\_XR\_enh-Core

*Proposal 1: Change the formula of short DRX cycle to floor([(DRX\_SFN\_COUNTER × 10240) + (SFN × 10) + subframe number -* drx-StartOffset*)] modulo (*drx-NonIntegerShortCycle*)) = 0*

- Samsung supports

=> Change the formula of short DRX cycle to floor([(DRX\_SFN\_COUNTER × 10240) + (SFN × 10) + subframe number - drx-StartOffset)] modulo (drx-NonIntegerShortCycle)) = 0

=> Noted

**DSR cancelation**

[R2-2404709](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404709.zip) Remaining issues on DSR and proposed TP to MAC            Xiaomi Communications, Nokia, Nokia Shanghai Bell, Qualcomm Incorporated

=> A PDCP SDU is considered to be associated with a DSR if it has not been transmitted in any MAC PDU and is a delay-critical PDCP SDU (as defined in TS38.323) associated with the LCH which triggered the DSR.

=> Noted

**Refined long BSR**

[R2-2404707](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404707.zip) Refined Long BSR determination               Nokia, Nokia Shanghai Bell, Samsung

*Proposal 1: Long BSR or Refined Long BSR determination should be done based on the buffer status after the MAC PDU is built.*

*Proposal 2: it is applicable to both regular BSR and padding BSR.*

- Qualcomm, Xiaomi, Lenovo, Huawei and LG is concerned as this impacts the MAC PDU assembly time. LG thinks that the MAC PDU may need to be assemble twice and not desirable from UE perspective.

- Samsung understand the complexity but it is beneficial for the UE to follow this proposal.

- Nokia suggests to instead add the existing text “when the MAC PDU containing the BSR is to be built” to the other two bullets. Rapporteur will check offline.

=> Not supported

=> Noted

**Initial state of PSI-based SDU discard after RRC resume**

[R2-2404325](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404325.zip) MAC Corrections CATT discussion Rel-18 NR\_XR\_enh-Core

*Proposal 1: Clarify in TS 38.321 that the initial state of PSI-based SDU discard is deactivated when the UE restores configuration during resume procedure.*

- Samsung and Xiaomi thinks that this is already covered by currect spec

=> Not needed

=> Noted

**UTO-UCI**

[R2-2404773](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404773.zip) Discussion on MAC procedure for UTO-UCI Huawei, HiSilicon discussion Rel-18 NR\_XR\_enh-Core

*Proposal1: The MAC entity shall determine UTO-UCI at MAC PDU assembly.*

- Samsung, LG, Qualcomm, Apple, Lenovo, thinks that this should be up to UE implementation. QC explains that RAN1 discussed and agreed not to.

- Ericsson thinks the UEs are too free.

- Huawei would like to at least specify something lose. Qualcomm thinks there is no point as it is not testable.

=> Not supported

=> Noted

[R2-2405447](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405447.zip) UTO-UCI and cases where UE is allowed to not generate MAC PDUs Ericsson, ZTE Corporation discussion Rel-17 NR\_XR\_enh-Core

*Proposal 1 RAN2 to resolve the case where the UE, for a configured grant with UTO-UCI configured, do not follow the conditions for not generating a MAC PDU in violation of RAN1 agreements.*

*Proposal 2 When determining whether a configured uplink grant shall be indicated as unused for PUSCH transmission, the UE shall consider if the configured uplink grants do not satisfy the conditions for not generating a MAC PDU according to 5.4.3.1.3.*

- LG thinks that we discussed this before and we don’t want to specify everything and all the cases. Oppo also thinks that there is no issue. Ericsson thinks that we break a RAN1 agreement, the gNB doesn’t know what the UE decides.

- Samsung, Apple and Qualcomm doesn’t think this is an issue. UTO-UCI can be sent in advance and there is no decoding ambiguity.

=> Not supported

=> Noted

*Remaining papers*

[R2-2404238](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404238.zip) Discussion on redundancy of BSR in the presence of DSR MAC CE IIT, Kharagpur discussion Rel-18

[R2-2404441](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404441.zip) Remaining time report in DSR MAC CE vivo discussion Rel-18 NR\_XR\_enh-Core

[R2-2404548](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404548.zip) Correction for initialization of DRX\_SFN\_COUNTER for XR ZTE Corporation, Sanechips CR Rel-18 38.321 18.1.0 1839 - F NR\_XR\_enh-Core

[R2-2404837](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404837.zip) Initialization of DRX\_SFN\_COUNTER Xiaomi discussion Rel-18 NR\_XR\_enh-Core

[R2-2405407](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405407.zip) Clarification on SR triggering for DSR DENSO CORPORATION discussion Rel-18 NR\_XR\_enh-Core

[R2-2405494](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405494.zip) Remaining issues on BSR and DSR Samsung discussion Rel-18 NR\_XR\_enh-Core

[R2-2405605](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405605.zip) Correction on DSR MAC CE Langbo discussion Rel-18 38.321 NR\_XR\_enh-Core

#### 7.5.3.2 PDCP and discard operation

Including outcome of [POST125bis][016][XR] PDCP SN gap reporting (Ericsson)

**PDCP SN gap reporting**

[R2-2404468](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404468.zip) Report of [POST125bis][016][XR] PDCP SN gap reporting (Ericsson) Ericsson discussion Rel-18

=> PDCP SN gap report is not triggered when the discard timer expires for the most recent PDCP SDU after it has been submitted to the lower layers but is not ACKed.

=> The TPs will be incorporated in the rapporteurs specs

**TP update: RX\_NEXT update for the gap reports**

[R2-2404287](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404287.zip) PDCP SN gap report and updating RX\_NEX Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_XR\_enh-Core

*Proposal 1: RX\_NEXT is incremented (upon reception of a SN gap report and upon being updated by a received SDU) only if, without the incrementing, the SDU with associated COUNT equal to RX\_NEXT would be considered as discarded (i.e. indicated as discarded in some received SN gap report).*

*Proposal 2: RAN2 agree the text proposal in Annex for Proposal 1.*

- Samsung shares the concerns. LG doesn’t think there is a problem as the reporting is done later than stored SDUs. Nokia thinks that it assumes no pre-processing and the scenario can occur so we can even prevent the scenario to occur or we have a fix.

- Ericsson has some sympathy for the proposal, the prioritization in the DL is possible but there may be difference in solution. Intel also acknowledges the existence of this problem.

- Vivo thinks that this is a big impact to UE and it can be handle by network implementation. Nokia thinks that we have to compare it to the TP we have, and we are already changing a behavior.

- Huawei thinks that this can be solved by NW implementation by setting T-ordering time properly. Ericsson doesn’t think we can solve it with configuration.

=> Noted

**TP update: PDCP SDUs that are to be discarded directly exempted from transmit operations**

[R2-2404648](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404648.zip) Clarifications of Operations for Directly Discarded PDCP SDUs Apple discussion Rel-18 NR\_XR\_enh-Core

*Proposal 1: RAN2 confirms that, for the PDCP SDUs received from the upper layers that are to be discarded directly, the transmit operations specified in the clause 5.2.1 of TS 38.323 are not applicable.*

*Proposal 2: Adopt the text proposal in the Annex to clarify the behavior described in Proposal 1.*

*­­*- LG, Intel, Ericson, Samsung think it is clear. Intel points out that this was discussed at length before. Vivo has a similar view.

=> Not supported

=> Noted

**Miscellaneous TP updates**

[R2-2404665](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404665.zip) Corrections for PDCP SN Gap Reporting Samsung discussion Rel-18

*Proposal 1: Include another required condition for triggering of a PDCP SN gap report that “the discarded PDCP SDU(s) have not been reported earlier in PDCP SN gap report”. Adopt the text proposal provided.*

- LG doesn’t understand the problem and the current TP avoids the trigger already. Samsung thinks that it is left to UE to avoid triggering too much report. LG thinks we agreed to not trigger for same discared SDU. Ericsson agrees with LG.

*Proposal 2: PDCP SN gap report is composed with considering the first discarded PDCP SDU and the last discarded PDCP SDU in the bitmap based approach that have not been reported earlier in PDCP SN gap report. Adopt text proposal provided.*

- Ericsson and LG thinks it is not a problem and it doesn’t need to be explicitly captured.

- Vivo thinks the problem is valid but the correction is not.

*Proposal 3: In accordance to RAN2#125bis agreement, for transmit operation of the PDCP SN gap reporting replace “transmitted by lower layers” by “have not been submitted by RLC to lower layers”. Adopt text proposal provided.*

=> In accordance to RAN2#125bis agreement, for transmit operation of the PDCP SN gap reporting replace “transmitted by lower layers” by “have not been submitted by RLC to lower layers”. Adopt text proposal provided

* [AT126][019][XR] CR to 38.323 (LG)

Intended outcome: agree to CR by email

Deadline: 05-24-24

R2-2405932 PDCP SN gap reporting LG Electronics Inc. (Rapporteur) CR Rel-18 38.323 18.1.0 0139 - F NR\_XR\_enh-Core

*Remaining papers*

[R2-2405048](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405048.zip) Discussion on spec impact on SDAP PDU set remapping OPPO discussion Rel-18 NR\_XR\_enh-Core

## 7.6 IoT NTN enhancements

(IoT\_NTN\_enh-Core; leading WG: RAN1; REL-18; WID: [RP-223519](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_98e/Docs/RP-223519.zip))

Time budget: 0 TU

Tdoc Limitation: 2 tdocs

### 7.6.1 Organizational

LSs, rapporteur inputs and other organizational documents.

Editorials/clarifications should not be included in any tdoc but sent to the WI spec rapporteurs, who can submit a rapporteur CR as part of this AI.

Rapporteur inputs and other pre-assigned documents in this AI do not count towards the tdoc limitation.

[R2-2404687](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404687.zip) Corrections on terminology fixed cell Qualcomm Incorporated CR Rel-18 36.331 18.1.0 5018 - F IoT\_NTN\_enh-Core Withdrawn

[R2-2404954](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404954.zip) Corrections on UE behaviour on DRX for IoT NTN MediaTek CR Rel-18 36.321 18.1.0 1585 2 F IoT\_NTN\_enh-Core [R2-2404007](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404007.zip)

[R2-2405128](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405128.zip) Corrections to IOT NTN Huawei, HiSilicon CR Rel-18 36.331 18.1.0 5021 - F IoT\_NTN\_enh-Core

[R2-2405129](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405129.zip) IOT NTN ASN1 RIL List Huawei, HiSilicon report Rel-18 IoT\_NTN\_enh-Core

[R2-2405302](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405302.zip) Corrections on terminology fixed cell Qualcomm Incorporated CR Rel-18 36.306 18.1.0 1889 - F IoT\_NTN\_enh-Core

[R2-2405452](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405452.zip) IoT NTN Kmac correction Ericsson CR Rel-17 36.300 17.7.0 1402 - F LTE\_NBIOT\_eMTC\_NTN-Core

[R2-2405453](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405453.zip) IoT NTN Kmac and measurment corrections Ericsson, Huawei CR Rel-18 36.300 18.1.0 1401 1 F IoT\_NTN\_enh-Core [R2-2403776](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403776.zip)

### 7.6.2 Stage 2 corrections

[R2-2404593](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404593.zip) Discussion on GNSS operation for IoT NTN OPPO discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2405117](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405117.zip) Remaining issues on GNSS operation Huawei, HiSilicon discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2405152](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405152.zip) Stage 2 corrections related to NTN measurements Samsung discussion Rel-18 IoT\_NTN\_enh-Core

### 7.6.3 RRC Corrections

[R2-2404157](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404157.zip) Further Discussion on T390 vivo discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2404209](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404209.zip) On the necessity of satellite assistance information for measurement in IoT NTN CATT discussion

[R2-2404592](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404592.zip) Removing ephemeris from dedicated signaling for EMC neighbor cells OPPO CR Rel-18 36.331 18.1.0 5017 - F IoT\_NTN\_enh-Core

[R2-2404594](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404594.zip) Discussion on RACH triggering during T390 running OPPO discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2404653](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404653.zip) T390 handling during mobility [S067][S068] Apple discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2404686](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404686.zip) Remaining issues on out-of-date GNSS fix Qualcomm Incorporated discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2404896](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404896.zip) Redundant ephemeris info and other issues in MO for IoT NTN ZTE Corporation, Sanechips, Apple, Samsung discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2405151](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405151.zip) [S068] Handling GNSS uplink transmission extension during handover Samsung, ZTE, Google discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2405198](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405198.zip) NTA handling after GNSS fix NEC discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2405440](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405440.zip) On left open issues for T390 handling Nokia, Nokia Shanghai Bell discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2405498](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405498.zip) [H005] Start of autonomous GNSS measurements Huawei, HiSilicon discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2405499](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405499.zip) [S068] UE behaviours on T390 upon handover or CHO Huawei, HiSilicon discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2405526](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405526.zip) Corrections on the conditions for stopping T390 Google Inc. discussion Rel-18 36.331

[R2-2405528](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405528.zip) Further RRC corrections for IoT NTN Samsung discussion Rel-18 IoT\_NTN\_enh-Core

### 7.6.4 Other Stage 3 corrections

*Corrections related to other specs, e.g. 36.321, 36.304, 36.306.*

[R2-2404408](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404408.zip) Remaining issues on GNSS operation in IoT NTN CATT discussion

[R2-2404843](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404843.zip) [E805][E806] Revert implementation of UE capability for HARQ and GNSS Ericsson discussion Rel-18 NR\_NTN\_enh-Core

[R2-2404900](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404900.zip) Remaining issues of MAC spec for IoT NTN ZTE Corporation, Sanechips discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2405441](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405441.zip) Further discussion on UE behaviour after successful GNSS acquisition Nokia, Nokia Shanghai Bell discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2405451](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405451.zip) R18 IoT NTN GNSS extension Ericsson discussion Rel-17 IoT\_NTN\_enh-Core

[R2-2405454](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405454.zip) IoT NTN MAC corrections Ericsson CR Rel-18 36.321 18.1.0 1586 - F IoT\_NTN\_enh-Core

[R2-2405530](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405530.zip) Miscellaneous correction for IoT-NTN Nokia, Nokia Shanghai Bell CR Rel-18 36.304 18.1.0 0875 - F IoT\_NTN\_enh-Core Withdrawn

[R2-2405534](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405534.zip) Miscellaneous correction for IoT-NTN Nokia CR Rel-18 36.304 18.1.0 0873 2 F IoT\_NTN\_enh-Core [R2-2403768](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403768.zip)

## 7.7 NR NTN enhancements

(NR\_NTN\_enh -Core; leading WG: RAN1; REL-18; WID: [RP-232669](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_101/Docs/RP-232669.zip))

Time budget: 0 TU

Tdoc Limitation: 2 tdocs

### 7.7.1 Organizational

LSs, rapporteur inputs and other organizational documents.

Editorials/clarifications should not be included in any tdoc but sent to the WI spec rapporteurs, who can submit a rapporteur CR as part of this AI.

Rapporteur inputs and other pre-assigned documents in this AI do not count towards the tdoc limitation.

[R2-2404127](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404127.zip) LS on UE capability for NW verified location (R4-2406496; contact: Huawei) RAN4 LS in Rel-18 NR\_NTN\_enh-Core To:RAN1, RAN2

[R2-2404146](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404146.zip) LS reply on OAM requirements for UE location verification (S5-242198; contact: CATT) SA5 LS in Rel-18 OAM\_NTN To:RAN3 Cc:SA2, RAN1, RAN2

[R2-2404248](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404248.zip) Correction on NR NTN CATT (Rapporteur) CR Rel-18 37.355 18.1.0 0504 - F NR\_NTN\_enh-Core

[R2-2404526](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404526.zip) Add FR2 band reference to NTN related UE Capabilities Intel Corporation draftCR Rel-18 38.306 18.1.0 NR\_NTN\_Ph3-Core

[R2-2404839](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404839.zip) Proposed conclusions for NR NTN RILs Rel-18 Ericsson report Rel-18 NR\_NTN\_enh-Core

[R2-2404855](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404855.zip) Miscellaneous corrections to Rel-18 NR NTN Ericsson CR Rel-18 38.331 18.1.0 4761 2 F NR\_NTN\_enh-Core [R2-2403772](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403772.zip) Revised

[R2-2404863](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404863.zip) Miscellaneous corrections to Rel-18 NR NTN Ericsson CR Rel-18 38.331 18.1.0 4761 3 F NR\_NTN\_enh-Core [R2-2404855](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404855.zip)

[R2-2405374](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405374.zip) Corrections for Non-terrestrial Networks InterDigital CR Rel-18 38.321 18.1.0 1858 - F NR\_NTN\_enh-Core

[R2-2405455](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405455.zip) Terminology alignment for NR NTN Ericsson, ZTE Corporation, Sanechips, Intel Corporation, CATT CR Rel-17 38.331 17.8.0 4836 - F NR\_NTN\_solutions-Core

=> Revised in [R2-2405714](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405714.zip)

[R2-2405714](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405714.zip) Terminology alignment for NR NTN Ericsson, ZTE Corporation, Sanechips, Intel Corporation, CATT CR Rel-17 38.331 17.8.0 4836 1 F NR\_NTN\_solutions-Core

[R2-2405456](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405456.zip) Terminology alignment for NR NTN Ericsson, ZTE Corporation, Sanechips, Intel Corporation, CATT CR Rel-18 38.331 18.1.0 4837 - F NR\_NTN\_enh-Core

=> Revised in [R2-2405715](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405715.zip)

[R2-2405715](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405715.zip) Terminology alignment for NR NTN Ericsson, ZTE Corporation, Sanechips, Intel Corporation, CATT CR Rel-18 38.331 18.1.0 4837 1 F NR\_NTN\_enh-Core

### 7.7.2 Stage 2 corrections

[R2-2404890](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404890.zip) Correction on Location-based CHO OPPO CR Rel-18 38.300 18.1.0 0863 - F NR\_NTN\_enh-Core

[R2-2405243](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405243.zip) Stage-2 corrections on NR NTN THALES CR Rel-18 38.300 18.1.0 0858 1 F NR\_NTN\_enh-Core [R2-2403773](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403773.zip)

### 7.7.3 RRC corrections

[R2-2404158](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404158.zip) Further Discussion on Satellite Switch with Resync vivo discussion Rel-18 NR\_NTN\_enh-Core

[R2-2404208](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404208.zip) Corrections on Event D2 measurement reporting CATT discussion

[R2-2404673](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404673.zip) Open issues on NR NTN enhancements Apple discussion Rel-18 NR\_NTN\_enh-Core

[R2-2404685](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404685.zip) SIB acquisition after Satellite switch with re-sync Qualcomm Incorporated discussion Rel-18 NR\_NTN\_enh-Core

[R2-2404844](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404844.zip) Comments on remaining NR NTN RILs Ericsson discussion Rel-18 NR\_NTN\_enh-Core

[R2-2404883](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404883.zip) Discussion on the leftover issues for NR-NTN Google Inc. discussion Rel-18

[R2-2405079](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405079.zip) Clarification on (cond)event D2 configuration ZTE Corporation, Sanechips discussion Rel-18 NR\_NTN\_enh-Core

[R2-2405143](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405143.zip) On Reducing the NW Uncertainty in Satellite Switching with Resynchronization Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_NTN\_enh-Core

[R2-2405169](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405169.zip) Discussion on E302, H115 Samsung discussion Rel-18 NR\_NTN\_enh-Core

[R2-2405273](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405273.zip) Discussion on beam management for satellite switch with re-sync ETRI discussion Rel-18 NR\_NTN\_enh-Core

[R2-2405423](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405423.zip) Discussion on satellite switch with resync in RRC states other than RRC connected ASUSTeK discussion Rel-18 NR\_NTN\_enh-Core

[R2-2405500](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405500.zip) Correction on NR NTN FR2 capabilities Huawei, HiSilicon CR Rel-18 38.331 18.1.0 4841 - F NR\_NTN\_enh-Core

[R2-2405501](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405501.zip) [H115] SIB19 acquisition after satellite switching Huawei, HiSilicon discussion Rel-18 NR\_NTN\_enh-Core

[R2-2405672](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405672.zip) [H010][H115] and skipping MIB acquisition Sequans Communications discussion Rel-18 NR\_NTN\_enh-Core

[R2-2405680](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405680.zip) Soft satellite switch SSB time offset and SMTC impact Sequans Communications discussion Rel-18 NR\_NTN\_enh-Core

### 7.7.4 Other Stage 3 corrections

*Corrections related to other specs, e.g. 38.321, 38.304, 38.306.*

[R2-2404856](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404856.zip) Terminology alignment in 38.304 for NR-NTN ZTE Corporation, Sanechips, Ericsson, CATT, Nokia, Intel, Huawei, HiSilicon CR Rel-18 38.304 18.1.0 0403 - F NR\_NTN\_enh-Core Revised

[R2-2405080](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405080.zip) Consideration on remaining FR2 UE capability issues ZTE Corporation, Sanechips, Eutelsat Group discussion Rel-18 NR\_NTN\_enh-Core

[R2-2405118](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405118.zip) Correction on HARQ buffer flush during satellite switch with re-synchronization Huawei, HiSilicon CR Rel-18 38.321 18.1.0 1854 - F NR\_NTN\_enh-Core

[R2-2405142](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405142.zip) On Scheduling Restrictions in Satellite Soft Switching with Resynchronization – further view Nokia discussion Rel-18 NR\_NTN\_enh-Core [R2-2403300](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403300.zip)

[R2-2405170](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405170.zip) Discussion on TAT handling in RACH-less CHO Samsung discussion Rel-18 NR\_NTN\_enh-Core

[R2-2405424](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405424.zip) Discussion on TA timer for satellite switch ASUSTeK discussion Rel-18 38.321 NR\_NTN\_enh-Core

[R2-2405623](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405623.zip) Terminology alignment in 38.304 for NR-NTN ZTE Corporation, Sanechips, Ericsson, CATT, Nokia, Intel, Huawei, HiSilicon CR Rel-18 38.304 18.1.0 0403 1 F NR\_NTN\_enh-Core [R2-2404856](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404856.zip)

## 7.8 NR support for UAV

(NR\_UAV -Core; leading WG: RAN2; REL-18; WID: [RP-230782](https://www.3gpp.org/ftp/TSG_RAN/TSG_RAN/TSGR_99/Docs/RP-230782.zip) and LTE WID: [RP-230783](https://www.3gpp.org/ftp/TSG_RAN/TSG_RAN/TSGR_99/Docs/RP-230783.zip) )

Time budget: 0 TU

Tdoc Limitation: 1

### 7.8.1 Organizational

Editorials/clarifications should not be included in any tdoc but sent to the WI spec rapporteurs, who can submit a rapporteur CR as part of this AI.

CR rapporteurs are asked to continue maintaining an open issues list reflecting known issues to be handled during the maintenance phase

**Rapporteur CRs - NR**

[R2-2404280](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404280.zip) Corrections for NR Support for UAV (Uncrewed Aerial Vehicles) Qualcomm Incorporated CR Rel-18 38.331 18.1.0 4693 2 F NR\_UAV-Core [R2-2403956](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403956.zip)

=> The CR is endorsed will be used as a baseline for any further updates

* [POST126][006][UAV] CR to 38.331 and 38.331 (Qualcomm)

Intended outcome: Agree to CRs and RIL list

Deadline: short

[R2-2405139](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405139.zip) Clarifications for NR UAV capabilities Huawei, HiSilicon, CATT draftCR Rel-18 38.306 18.1.0 F NR\_UAV-Core

=> Need to include the change for T*ransmissionMode1* similar to openloop

=> the CR is endorsed in [R2-2405925](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405925.zip) with the change above and will be merged with mega CR

R2-2405925 Clarifications for NR UAV capabilities Huawei, HiSilicon, CATT draftCR Rel-18 38.306 18.1.0 F NR\_UAV-Core

=> Merged to the mega CR

[R2-2405145](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405145.zip) Miscellaneous UAV-related Stage-2 Corrections Nokia, Ericsson, Qualcomm CR Rel-18 38.300 18.1.0 0867 - F NR\_UAV-Core

=> the CR is agreed

[R2-2405531](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405531.zip) Correction on resource pool selection for A2X communication Samsung, Sharp CR Rel-18 38.321 18.1.0 1813 2 F NR\_UAV-Core [R2-2403957](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403957.zip)

=> the CR will be revised with the agreement from this meeting and approved by email by Friday this week

* [AT126][005][UAV] CR to 321 (Samsung)

Intended outcome: agree to CR

Deadline: 05-24-24

R2-2405998 Correction on resource pool selection for A2X communication Samsung, Sharp CR Rel-18 38.321 18.1.0 1813 3 F NR\_UAV-Core

**Rapporteur CRs - LTE**

[R2-2404281](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404281.zip) Corrections to Enhanced LTE Support for UAV (Uncrewed Aerial Vehicles) Qualcomm Incorporated, Nokia CR Rel-18 36.331 18.1.0 5004 2 F LTE\_UAV\_enh-Core [R2-2404033](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404033.zip)

=> The CR is revised with changes agreed in main ASN.1 session and will be reviewed/agreed by email

[R2-2405131](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405131.zip) Capabilities for Rel-18 Enhanced LTE Support for UAV WI Huawei, HiSilicon, CATT CR Rel-18 36.306 18.1.0 1884 1 F LTE\_UAV\_enh-Core [R2-2402495](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402495.zip)

=> The CR is agree

**Other CRs**

[R2-2405297](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405297.zip) A2X services that leverage V2X mechanisms Qualcomm Incorporated draftCR Rel-18 37.985 18.0.0 F NR\_UAV-Core, LTE\_UAV\_enh-Core

- Nokia is not sure this is needed as we didn’t do any enhancements to SL. Ericsson agrees with Nokia, it is not necessary and it is not leveraging A2X mechanism as it has it’s own layer. Samsung also thinks we didn’t do any enhancements to SL. CATT is ok with the TR but points out that this TR was not in the list of impacted spec.

=> Not pursued

R2-2405971 Capability for UAV NS values Ericsson, Qualcomm Inc. draftCR Rel-18 38.306 18.1.0 F NR\_UAV-Core

### 7.8.2 RRC RIL

### 7.8.3 Other

Other critical corrections

[R2-2405134](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405134.zip) Implicit altitude-based NumberOfTriggeringCells Huawei, HiSilicon discussion Rel-18 NR\_UAV-Core

*Proposal 1: RAN2 to confirm that the altitude-based NumberOfTriggeringCells can be implicitly implemented by configuring NumberOfTriggeringCells and different altitude thresholds in event AxHy.*

- Nokia explains that this true but there is nothing to agree.

*Proposal 2: Altitude-based NumberOfTriggeringCells should be captured in stage 2 spec, i.e., TS 38.300 because it was a new feature introduced for NR UAV.*

- LG and Nokia thinks that this is clear in 38.331. Vodafone thinks that it should be clear in stage2 what can be found in stage 3. Ericsson also thinks that it is fair to describe in stage 2 how to make this feature work. Nokia thinks it is clear and it can be inferred from the description. Ericsson thinks that this was a specific agreement. Samsung also thinks that this is clear.

=> Noted

[R2-2405461](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405461.zip) discussion on SL LCP for A2X ZTE Corporation, Sanechips discussion Rel-18 NR\_UAV-Core

=> exclude the Destination associated to A2X communication if the new transmission is not associated to a sidelink grant in A2X dedicated resource pool when the UE is configured with A2X dedicated resource pool in SL LCP procedure, and adopt the following TP for TS38.321.

=> Noted

## 7.9 Enhanced NR Sidelink Relay

(NR\_SL\_relay\_enh-Core; leading WG: RAN2; REL-18; WID: [RP-223501](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_98e/Docs/RP-223501.zip))

Time budget: 0TU

Tdoc Limitation: 3 tdocs

### 7.9.1 Organizational

Including incoming LSs and rapporteur inputs. CR rapporteurs are asked to continue maintaining an open issues list reflecting known issues to be handled during the maintenance phase.

[R2-2404134](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404134.zip) Reply LS on L2ID and user info for L2 based U2U (S2-2405379; contact: OPPO) SA2 LS in Rel-18 NR\_SL\_relay\_enh-Core To:RAN2, CT1

[R2-2404136](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404136.zip) Reply LS on U2U relay selection (S2-2405531; contact: OPPO) SA2 LS in Rel-18 NR\_SL\_relay\_enh-Core To:RAN2 Cc:CT1

[R2-2404251](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404251.zip) Discussion on LS S2-2405531 OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2405367](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405367.zip) RRC corrections for Rel-18 SL relay enhancements Huawei, HiSilicon, Ericsson, ZTE, CATT, Sharp, Lenovo, OPPO, Nokia, Apple, MediaTek, Xiaomi, Samsung, ASUSTeK CR Rel-18 38.331 18.1.0 4684 2 F NR\_SL\_relay\_enh-Core [R2-2403813](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403813.zip)

[R2-2405532](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405532.zip) Correction for SL Relay UE capability Samsung CR Rel-18 38.331 18.1.0 4774 1 F NR\_SL\_relay\_enh-Core [R2-2403975](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403975.zip)

[R2-2405533](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405533.zip) Correction for SL Relay UE capability Samsung CR Rel-18 38.306 18.1.0 1091 1 F NR\_SL\_relay\_enh-Core [R2-2403976](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403976.zip)

[R2-2405856](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405856.zip) Miscellaneous Rapporteur Corrections to 38.323 for SL Relay InterDigital, ZTE CR Rel-18 38.323 18.1.0 0135 2 F NR\_SL\_relay\_enh-Core [R2-2403815](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403815.zip)

### 7.9.2 Stage 2 corrections

Impact to 38.300. A single CR with miscellaneous corrections is requested from the CR rapporteur. Minor and editorial issues should be coordinated with the rapporteur and merged into the miscellaneous CR. Larger issues can be discussed based on contributions.

[R2-2404254](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404254.zip) Discussion on stage-2 corrections OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2404326](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404326.zip) Candidate MP Relay UEs Reporting for N3C Remote UE CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

### 7.9.3 RRC corrections

Impact to 38.331, except for capability-related issues (see agenda item 7.9.7). A single CR with miscellaneous corrections is requested from the CR rapporteur. Minor and editorial issues should be coordinated with the rapporteur and merged into the miscellaneous CR. Larger issues where no clear conclusion was reached in [Post125][417] can be discussed based on contributions.

[R2-2404252](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404252.zip) Correction of local ID setting by U2U Relay UE OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2404327](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404327.zip) Discussion on N122, B109 and SA2 LS Reply CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2404328](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404328.zip) Clarification on the U2U Relay (Re-)selection Procedure CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2404663](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404663.zip) Discussion on SLRB index in SUI for L2 U2U relay Apple discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2404678](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404678.zip) Discussion on the remaining issues for U2U relay LG Electronics Inc. discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2404732](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404732.zip) SL relay RRC correction proposals Nokia discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2404733](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404733.zip) RSRP thresholds for U2N relay selection and re-selection Nokia discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2404803](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404803.zip) [B109]Sidelink RRC reconfiguration failure for U2U Lenovo discussion Rel-18

[R2-2405237](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405237.zip) Corrections on UE capability reporting in SUI for L2 U2U relay Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2405238](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405238.zip) Discussion on the SLRB index in the SUI for U2U relay UE Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2405286](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405286.zip) On RIL B109 Ericsson discussion Rel-18

[R2-2405322](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405322.zip) Correction on setuprelease type sidelink fields handling Google CR Rel-18 38.331 18.1.0 4821 - F NR\_SL\_enh-Core

[R2-2405351](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405351.zip) Discussion on relay UE traffic pattern reporting in UAI ZTE, Sanechips discussion NR\_SL\_relay\_enh-Core

[R2-2405352](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405352.zip) Discussion on n3c-BearerAssociated ZTE, Sanechips discussion NR\_SL\_relay\_enh-Core

[R2-2405368](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405368.zip) Rapp RRC CR for Rel-18 SL relay enhancement Huawei, HiSilicon report Rel-18 38.331 NR\_SL\_relay\_enh-Core Withdrawn

[R2-2405369](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405369.zip) RIL list for SL relay Huawei, HiSilicon report Rel-18 NR\_SL\_relay\_enh-Core

[R2-2405425](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405425.zip) [K008] How to set the contents of sidelink UE capability messages for L2 U2U Relay ASUSTeK discussion Rel-18 38.331 NR\_SL\_relay\_enh-Core

[R2-2405458](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405458.zip) [N122] and capability issue Nokia discussion NR\_SL\_relay\_enh-Core

[R2-2405601](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405601.zip) RRC corrections for Rel-18 SL relay enhancements Huawei, HiSilicon, ASUSTeK, Nokia, OPPO CR Rel-18 38.331 18.1.0 4847 - F NR\_SL\_relay\_enh-Core

[R2-2405628](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405628.zip) discussion on U2U relay related issues Sharp discussion Rel-18 NR\_SL\_relay\_enh-Core

### 7.9.4 SRAP corrections

Impact to 38.351. A single CR with miscellaneous corrections is requested from the specification rapporteur. Minor and editorial issues should be coordinated with the rapporteur and merged into the miscellaneous CR. Larger issues can be discussed based on contributions.

[R2-2404247](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404247.zip) Corrections for NR sidelink relay enhancements OPPO, ZTE CR Rel-18 38.351 18.1.0 0034 2 F NR\_SL\_relay\_enh-Core [R2-2403814](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403814.zip)

[R2-2404253](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404253.zip) Discussion on SRAP corrections OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2404662](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404662.zip) Correction for egress link determination in L2 U2U Relay UE Apple CR Rel-18 38.351 18.1.0 0036 - F NR\_SL\_relay\_enh-Core

### 7.9.5 MAC corrections

Impact to 38.321. A single CR with miscellaneous corrections is requested from the CR rapporteur. Minor and editorial issues should be coordinated with the rapporteur and merged into the miscellaneous CR. Larger issues can be discussed based on contributions.

### 7.9.6 RLC and PDCP corrections

Impact to 38.322 and 38.323. For each specification, a single CR with miscellaneous corrections is requested from the CR rapporteur. Minor and editorial issues should be coordinated with the rapporteur and merged into the miscellaneous CR. Larger issues can be discussed based on contributions.

[R2-2405353](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2405353.zip) Discussion on PDCP corrections for MP ZTE, Sanechips discussion NR\_SL\_relay\_enh-Core

### 7.9.7 UE capabilities

Impact to 38.306 and capability-related impact to 38.331. A single CR with miscellaneous corrections is requested from the CR rapporteur. Minor and editorial issues should be coordinated with the rapporteur and merged into the miscellaneous CR. Larger issues can be discussed based on contributions.

[R2-2405236](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2405236.zip) UE capability corrections for multi-path operation Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2405287](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405287.zip) Discussion on Open Issues in 38.306 Ericsson discussion Rel-18

### 7.9.8 Idle mode corrections

Impact to 38.304. A single CR with miscellaneous corrections is requested from the CR rapporteur. Minor and editorial issues should be coordinated with the rapporteur and merged into the miscellaneous CR. Larger issues can be discussed based on contributions.

## 7.10 IDC enhancements for NR and MR-DC

(NR\_IDC\_enh-Core; leading WG: RAN2; REL-18; WID: [RP-221281](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_96/Docs/RP-221281.zip))

Time budget: 0 TU

Tdoc Limitation: 1 tdocs

Corrections. For smaller corrections please contact CR editor / Rapporteur directly. For RRC corrections, only selected RIL can be submitted in the agenda (i.e. only if RRC editor suggests to discuss the RIL under this agenda)

[R2-2405484](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2405484.zip) Xiaomi, Nokia, Huawei, HiSilicon, ZTE Corporation, Sanechips, Ericsson, Samsung CR Rel-18 38.331 18.1.0 4838 - F NR\_IDC\_enh-Core

* [AT126][014][IDC] Miscellaneous corrections for IDC (Xiaomi)

Scope: To discuss the changes in R2-2405484

Intended outcome: Agreeable RRC CR R2-240xxxx

Deadline of company comments: Wednesday 2024-05-22 1800

Deadline of comments on the CR revision: Thursday 2024-05-23 1800

Note: The RRC CR will be agreed by email without CB.

Deadline: 05-24-24

## 7.11 Enhancements of NR Multicast and Broadcast Services

(NR\_MBS\_enh-Core; leading WG: RAN2; REL-18; WID: [RP-231829](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_101/Docs/RP-231829.zip))

Time budget: 0 TU

Tdoc Limitation: 1 tdoc

### 7.11.1 Organizational

LS in, rapporteur input (e.g. rapporteur CR, open issues list)

[R2-2404411](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404411.zip) RIL list for MBS Huawei, HiSilicon report Rel-18 NR\_MBS\_enh-Core

[R2-2405113](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405113.zip) MBS Rapporteur CR for RRC Huawei, HiSilicon, CATT, Samsung, LG Electronics Inc., CMCC, Xiaomi CR Rel-18 38.331 18.1.0 4688 2 F NR\_MBS\_enh-Core [R2-2404019](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404019.zip)

### 7.11.2 RRC corrections

Corrections related to RILs from ASN.1 review.

[R2-2404339](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404339.zip) [C150] Issue on applying PTM configuration in RRC Release CATT, Huawei, HiSilicon, CBN, China Broadnet discussion Rel-18 NR\_MBS\_enh-Core

[R2-2404992](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404992.zip) MBS open issues Ericsson discussion Rel-18 NR\_MBS\_enh-Core

[R2-2405078](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405078.zip) [S731] SDT failure and multicast reception Samsung discussion Rel-18

[R2-2405293](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405293.zip) Multicast reception in RRC\_INACTIVE when an SDT procedure fails LG Electronics Inc. discussion Rel-18 NR\_MBS\_enh-Core

[R2-2405472](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405472.zip) Paging message Sharp discussion Withdrawn

[R2-2405483](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405483.zip) [X151] Discussion on frequency information reported for shared processing Xiaomi, Huawei, HiSilicon discussion Rel-18 NR\_MBS\_enh-Core [R2-2402849](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402849.zip)

[R2-2405564](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405564.zip) [N101] [N102] [N103] [N104] [N105] Control plane aspects of multicast reception in RRC\_INACTIVE state Nokia discussion Rel-18 NR\_MBS\_enh-Core

[R2-2405681](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405681.zip) [C150] Which cell to apply the PTM configuration in RRC\_INACTIVE ZTE, Sanechips discussion Rel-18 NR\_MBS\_enh-Core

### 7.11.3 Other corrections

*Corrections related to other specs, e.g. 38.300, 38.321, 38.323, UE capabilities.*

[R2-2404667](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404667.zip) Clarification on MAC reset for multicast reception in RRC\_INACTIVE Apple, CATT discussion Rel-18 NR\_MBS\_enh-Core

[R2-2404668](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404668.zip) Clarification on MAC reset for multicast reception in RRC\_INACTIVE Apple, Samsung, CATT, Huawei, HiSilicon, Nokia, Sharp, Qualcomm Incorporated, Ericsson CR Rel-18 38.321 18.1.0 1842 - F NR\_MBS\_enh-Core

[R2-2405582](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405582.zip) Error data handling for MBS Langbo discussion Rel-18 38.331 NR\_MBS\_enh-Core

## 7.12 Mobile IAB (Integrated Access and Backhaul) for NR

( NR\_mobile\_IAB -Core; leading WG: RAN3; REL-18; WID: [RP-232669](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_101/Docs/RP-232669.zip))

Time budget: N/A

Tdoc Limitation: 1 tdocs (if you want to input beyond the tdoc limitation, please cooperate with CR Rapporteurs).

### 7.12.1 Organizational and Stage-2

LS in. Includes TS impacts 38300 and Stage-2 Centric issues (can also cover secondary impacts to other TSes)

[R2-2404960](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404960.zip) Miscellaneous corrections on Mobile IAB Ericsson CR Rel-18 38.331 18.1.0 4701 2 F NR\_mobile\_IAB-Core [R2-2404018](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404018.zip)

[R2-2404961](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404961.zip) RILs conclusions for mobile IAB Ericsson discussion Rel-18 NR\_mobile\_IAB-Core

[R2-2405556](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405556.zip) Clarification on supporting two logical DUs and connecting via stationary IAB node ZTE, Qualcomm, Ericsson, Samsung, Nokia CR Rel-18 38.300 18.1.0 0853 2 F NR\_mobile\_IAB-Core [R2-2403959](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403959.zip)

[R2-2405686](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405686.zip) Mismatch of terminology between 38.304 and 38.331 Samsung CR Rel-18 38.304 18.1.0 0398 1 F NR\_mobile\_IAB-Core [R2-2402936](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402936.zip)

### 7.12.2 Stage-3

For multi-TS input, it is allowed to input also here.

#### 7.12.2.1 BAP

TS impacts 38340 and BAP Centric issues (can also cover secondary impacts to other TSes if applicable)

#### 7.12.2.2 Control plane corrections

TS impacts 38331, ASN.1 RIL, UE capabilities and 38.304

#### 7.12.2.3 User plane corrections

TS impacts 38321

## 7.13 Further enhancement of data collection for SON MDT in NR and EN-DC

(NR\_ENDC\_SON\_MDT\_enh2-Core; leading WG: RAN3; REL-18; WID: [RP-221825](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_96/Docs/RP-221825.zip))

Includes LS in’s related to AI/ML for NG-RAN

WI is declared 100% complete

Time budget: 0 TU

Tdoc Limitation: 1 tdocs ?

### 7.13.1 Organizational

Ls in and Rapporteur input. WI/Spec Rapporteur(s) are invited to provide updated open issues lists that need to be handled.

[R2-2405091](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2405091.zip) Corrections to 38331 for Rel-18 SONMDT Ericsson CR Rel-18 38.331 18.1.0 4815 - F NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2405092](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405092.zip) RIL list for SON Ericsson discussion NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2405343](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405343.zip) WI RIL list for 36.331 for R18 SONMDT Huawei, HiSilicon discussion NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2405344](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405344.zip) Corrections to TS 36.331 for R18 SONMDT Huawei, HiSilicon CR Rel-18 36.331 18.1.0 5022 - F NR\_ENDC\_SON\_MDT\_enh2-Core

### 7.13.2 Papers related to RILs

[R2-2404947](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404947.zip) [C307] Discussion on remaining issue on fast MCG recovery CATT,Fujitsu, Ericsson discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2405085](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405085.zip) Consideration on SON/MDT remaining issues ZTE Corporation, Sanechips discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2405093](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405093.zip) Addressing SONMDT RILs and miscellaneous corrections Ericsson discussion NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2405166](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405166.zip) [S524] Handling SPR configuration during CHO/LTM based recovery Samsung discussion

[R2-2405557](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405557.zip) [J041][J042]RILs for fast MCG recovery MRO SHARP Corporation discussion

### 7.13.3 Other

[R2-2404736](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404736.zip) Correction of availability indication of logged MDT report for SNPN Nokia CR Rel-18 37.320 18.1.0 0132 - F NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2405345](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405345.zip) Discussion on stage-2 issues for R18 SONMDT Huawei, HiSilicon discussion NR\_ENDC\_SON\_MDT\_enh2-Core

## 7.14 Enhancement on NR QoE management and optimizations for diverse services

(NR\_QoE\_enh-Core; leading WG: RAN3; REL-18; WID: [RP-223488](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_98e/Docs/RP-223488.zip))

Time budget: 0 TU

Tdoc Limitation: 1 tdoc

### 7.14.1 Organizational

LSs and rapporteur inputs (e.g. rapporteur CR, open issues list)

[R2-2404145](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404145.zip) Reply LS on area scope handling for QoE measurements (S5-241925; contact: Ericsson) SA5 LS in Rel-18 NR\_QoE\_enh-Core To:RAN2 Cc:RAN3, SA4

[R2-2404479](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404479.zip) Correction of Enhancement on NR QoE management and optimizations for diverse services Ericsson CR Rel-18 38.331 18.1.0 4781 - F NR\_QoE\_enh-Core

[R2-2404480](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404480.zip) RIL issue list for QoE Ericsson discussion Rel-18 NR\_QoE\_enh-Core

### 7.14.2 RRC corrections

*Corrections related to RILs from ASN.1 review.*

[R2-2404481](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404481.zip) Open RIL issues for QoE measurements Ericsson discussion Rel-18 NR\_QoE\_enh-Core

[R2-2404604](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404604.zip) Discussion on remaining QoE issues Samsung Shenzhen discussion Rel-18 NR\_QoE\_enh-Core

[R2-2405086](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405086.zip) Consideration on QoE remaining issues ZTE Corporation, Sanechips discussion Rel-18 NR\_QoE\_enh-Core

[R2-2405341](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405341.zip) Discussion on serving cell for MBS QoE collection Huawei, HiSilicon discussion NR\_QoE\_enh-Core

[R2-2405342](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405342.zip) Discussion on the condition QoENRDC [H174] Huawei, HiSilicon discussion NR\_QoE\_enh-Core

[R2-2405443](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405443.zip) Discussion on QoE left open issues Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_QoE\_enh-Core

### 7.14.3 Other corrections

Corrections related to other specs, e.g. 38.300, 37.340, UE capabilities.

## 7.15 NR Sidelink evolution

(NR\_SL\_enh2; leading WG: RAN1; REL-18; WID: [RP-230077](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_99/Docs/RP-230077.zip))

Time budget: 0 TU

Tdoc Limitation: 2 tdocs

### 7.15.1 Organizational

Including incoming LSs and rapporteur inputs. CR rapporteurs are asked to continue maintaining an open issues list reflecting known issues to be handled during the maintenance phase.

[R2-2404106](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404106.zip) Reply to LS on IUC or DRX in co-channel co-existence (R1-2403573; contact: LGE) RAN1 LS in Rel-18 NR\_SL\_enh2-Core To:RAN2

[R2-2404108](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404108.zip) LS on CPE starting position for S-SSB in SL-U (R1-2403578; contact: OPPO) RAN1 LS in Rel-18 NR\_SL\_enh2-Core To:RAN2

[R2-2404109](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404109.zip) LS on updating RAN1 agreement about minimum time gap Z (R1-2403588; contact: Huawei) RAN1 LS in Rel-18 NR\_SL\_enh2-Core To:RAN2

### 7.15.2 Control plane corrections

Including RRC corrections and ASN.1 RILs. A single CR with miscellaneous corrections is requested; minor and editorial issues should be coordinated with the CR rapporteur and merged into the miscellaneous CR. Note RRC CR rapporteur’s summary and suggestion may be provided.

[R2-2404167](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404167.zip) Correction on Release-18 SL Evolution OPPO CR Rel-18 38.331 18.1.0 4646 2 F NR\_SL\_enh2 [R2-2403930](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403930.zip)

[R2-2404168](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404168.zip) Left issues on RRC OPPO discussion Rel-18 NR\_SL\_enh2

[R2-2404171](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404171.zip) RIL list for R18 SL OPPO report Rel-18 NR\_SL\_enh2

[R2-2404200](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404200.zip) [O324] Allowed carrier indication upon carrier addition and release OPPO discussion Rel-18 NR\_SL\_enh2

[R2-2404216](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404216.zip) [H162][H163] Discussion on RRC issues Huawei, HiSilicon discussion Rel-18 NR\_SL\_enh2

[R2-2404318](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404318.zip) Discussion on remaining issue of TS 38.304 NEC Corporation discussion Rel-18 NR\_SL\_enh2

[R2-2404574](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404574.zip) Correction on TS 38.331 for SL Xiaomi discussion

[R2-2405230](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405230.zip) [Z712][Z713]Discussion on control plane correction ZTE Corporation, Sanechips discussion Rel-18 NR\_SL\_enh2

[R2-2405857](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405857.zip) Miscellaneous Rapporteur Stage 2 Corrections for NR Sidelink Evolution InterDigital CR Rel-18 38.300 18.1.0 0838 2 F NR\_SL\_enh2 [R2-2403926](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403926.zip)

### 7.15.3 User plane corrections

Including MAC corrections. A single CR with miscellaneous corrections is requested; minor and editorial issues should be coordinated with the CR rapporteur and merged into the miscellaneous CR. Note RRC CR rapporteur’s summary and suggestion may be provided.

[R2-2404169](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404169.zip) Left issues on MAC OPPO discussion Rel-18 NR\_SL\_enh2

[R2-2404210](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404210.zip) Remaining issue on Re-evaluation/Pre-emption for MCSt CATT discussion

[R2-2404217](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404217.zip) Correction on SL CSI reporting MAC CE Huawei, HiSilicon discussion Rel-18 NR\_SL\_enh2

[R2-2404218](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404218.zip) MAC corrections for SL evolution Huawei, HiSilicon discussion Rel-18 NR\_SL\_enh2

[R2-2404319](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404319.zip) Discussion on remaining issue of TS 38.321 NEC Corporation discussion Rel-18 NR\_SL\_enh2

[R2-2404320](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404320.zip) Clarification on SL DRX RTT timer for SL-U SHARP Corporation discussion Rel-18

[R2-2404357](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404357.zip) Correction on Sidelink CSI reporting MAC CE LG Electronics Inc. discussion Rel-18 38.321 NR\_SL\_enh2

[R2-2404358](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404358.zip) Discussion on CSI report for Carrier Aggregation SHARP Corporation discussion NR\_SL\_enh2-Core

[R2-2404385](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404385.zip) SL CSI report Nokia discussion NR\_SL\_enh2

[R2-2404496](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404496.zip) Correction to resource selection for LTE-NR cochannel scenario Ericsson, LG Electronics Inc. CR Rel-18 38.321 18.1.0 1807 1 F NR\_SL\_enh2 [R2-2402946](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402946.zip)

[R2-2404497](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404497.zip) Discussion on remaining UP issues Ericsson discussion Rel-18 NR\_SL\_enh2

[R2-2404575](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404575.zip) Correction on TS 38.321 for SL Xiaomi discussion

[R2-2404838](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404838.zip) Correction on Release-18 Sidelink evolution LG CR Rel-18 38.321 18.1.0 1830 1 F NR\_SL\_enh2-Core [R2-2403931](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403931.zip)

[R2-2404892](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404892.zip) Discussion on re-evaluation and pre-emption check for MCSt vivo discussion Rel-18

[R2-2405228](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405228.zip) On group size and PSFCH occasions for SL-U Nokia discussion NR\_SL\_enh2

[R2-2405231](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405231.zip) Discussion on remaining issues on user plane for SL evo ZTE Corporation, Sanechips discussion Rel-18 NR\_SL\_enh2

[R2-2405232](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405232.zip) Discussion on specification impact on SL CSI report ZTE Corporation, Sanechips, Ericsson discussion Rel-18 NR\_SL\_enh2

[R2-2405462](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405462.zip) Discussion on carrier selection for SL MAC CE(s) LG Electronics Inc. discussion NR\_SL\_enh2

=> Revised in [R2-2405698](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405698.zip)

[R2-2405698](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405698.zip) Discussion on carrier selection for SL MAC CE(s) LG Electronics Inc. discussion NR\_SL\_enh2

[R2-2405685](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405685.zip) Summary on user plane corrections LG Electronics Inc. discussion NR\_SL\_enh2 Late

## 7.16 Void

## 7.17 Dual Transmission/Reception (Tx/Rx) Multi-SIM for NR

(NR\_DualTxRx\_MUSIM-Core; leading WG: RAN2; REL-18; WID: [RP-233071](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_100/Docs/RP-231461.zip))

Time budget: 0 TU

Tdoc Limitation: 2 tdocs

### 7.17.1 Organizational

Rapporteur input, i.e., WI/Spec Rapporteur(s) are invited to provide updated open issues lists that need to be handled.

Incoming LS.

Corrections to TS 38.300.

[R2-2404386](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404386.zip) RILs\_conclusion\_MUSIM vivo(Rapporteur) other Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2404387](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404387.zip) Correction on NR MUSIM enhancements vivo CR Rel-18 38.331 18.1.0 4776 - F NR\_DualTxRx\_MUSIM-Core

[R2-2404388](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404388.zip) Correction on NR MUSIM enhancements vivo CR Rel-18 38.331 18.1.0 4777 - F NR\_DualTxRx\_MUSIM-Core

[R2-2404478](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404478.zip) Clarification to R18 MUSIM UE Capabilities Huawei, HiSilicon draftCR Rel-18 38.306 18.1.0 NR\_DualTxRx\_MUSIM-Core

### 7.17.2 RRC

Corrections to RRC (other than UE capabilities, which should be submitted to 7.17.3).

Discussions and proposals on the RRC open issues if listed by Rapporteur(s) or triggered by LSs, etc..

[R2-2404242](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404242.zip) Discussion on restriction of per FR/UE report for maximum CC number Huawei, HiSilicon discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2404610](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404610.zip) [Z103][Z115][Z117] Discussion on MUSIM RILs vivo discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2404706](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404706.zip) Discussion on stopping of the wait timer Huawei, HiSilicon discussion

[R2-2404719](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404719.zip) [RIL Z116] [RIL Z103] Consideration on the MUSIM UAI Reporting ZTE Corporation, Sanechips discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2404744](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404744.zip) [RIL Z115] [RIL Z117] Correction to the MUSIM Gap Configuration ZTE Corporation, Sanechips, Samsung discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2404745](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404745.zip) Consideration on the Reconfiguration Failure Processing When T348 is Running ZTE Corporation, Sanechips discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2404792](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404792.zip) SpCells in MUSIM capability restriction signalling Ericsson discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2404793](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404793.zip) Intra-band CA in MUSIM capability restriction signalling Ericsson discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2405191](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405191.zip) Additional capability restrictions related to measurement gaps Nokia discussion

[R2-2405192](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405192.zip) Clarification on DAPS Handover for MUSIM Dual TX/RX operation Nokia discussion

[R2-2405537](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405537.zip) Wait Timer Stop Handling LG Electronics discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2405641](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405641.zip) Discussion on PSCell release for MUSIM operation Samsung Electronics Czech discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2405642](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405642.zip) Discussion on UE behavior upon T348 stop and T348 expiry Samsung Electronics Czech discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2405689](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405689.zip) Discussion on clarification of the action upon T348 expiry China Telecom Corporation Ltd. discussion NR\_DualTxRx\_MUSIM-Core

### 7.17.3 Other

UE capabilities related corrections.

Corrections to TS 37.340.

Other issues if not covered by the previous agenda items.

## 7.18 Mobile Terminated Small Data Transmission

(NR\_NR\_MT\_SDT-Core; leading WG: RAN2; REL-18; WID: [RP-222993](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_98e/Docs/RP-222993.zip))

Time budget: 0 TU

Tdoc Limitation: 1 tdoc

### 7.18.1 Organizational

LS in, rapporteur input (e.g. rapporteur CR, open issues list)

[R2-2404542](file:///C:\\Users\\panidx\\OneDrive%20-%20InterDigital%20Communications,%20Inc\\Documents\\3GPP%20RAN\\TSGR2_126\\Docs\\R2-2404542.zip) SDT ASN.1 RIL list ZTE Corporation(rapporteur) report

=> The following RILs as agreed: E075, H071 and S081

[R2-2404537](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404537.zip) [E075] SDT corrections for harmonizing T319a and SDT ongoing labels ZTE Corporation (rapporteur), Ericsson CR Rel-18 38.331 18.1.0 4687 1 F NR\_SmallData\_INACTIVE-Core, NR\_MT\_SDT-Core [R2-2402757](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402757.zip)

=> the CR is revised to update naming convention of *cg-MT-SDT-MaxDurationToNextCG-Occasion*

=> The CR is agreed in R2-2405953 with the change above

R2-2405953 [E075] SDT corrections for harmonizing T319a and SDT ongoing labels ZTE Corporation (rapporteur), Ericsson CR Rel-18 38.331 18.1.0 4687 2 F NR\_SmallData\_INACTIVE-Core, NR\_MT\_SDT-Core

=> Agreed

[R2-2404543](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404543.zip) [S081] Clarification for order of list in PagingRecordList ZTE Corporation(rapporteur), Samsung CR Rel-17 38.331 17.8.0 4785 - F LTE\_NR\_MUSIM-Core

=> The CR is agreed

[R2-2404544](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404544.zip) [S081] Clarification for order of list in PagingRecordList ZTE Corporation(rapporteur), Samsung CR Rel-18 38.331 18.1.0 4786 - A LTE\_NR\_MUSIM-Core

[R2-2404545](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404545.zip) [S081] Clarification for order of list in PagingRecordList ZTE Corporation(rapporteur), Samsung CR Rel-18 38.331 18.1.0 4787 - F NR\_MT\_SDT-Core

=> Merge [R2-2404544](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404544.zip) into this CR and keep it as Cat F

=> The CR is agreed with this merge in [R2-2405952](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404545.zip)

R2-2405952 [S081] Clarification for order of list in PagingRecordList ZTE Corporation (rapporteur), Samsung CR Rel-18 38.331 18.1.0 4787 1 F NR\_MT\_SDT-Core

=> Agreed

[R2-2404778](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404778.zip) Rapportuer MAC CR for MT-SDT Huawei, HiSilicon CR Rel-18 38.321 18.1.0 1846 - F NR\_MT\_SDT-Core

=> fix the naming convention in RRC

=> The CR is not pursued

### 7.18.2 Others

Essential corrections only (including any topics)

[R2-2404258](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404258.zip) Correction of RA-SDT procedure Ericsson CR Rel-18 38.321 18.1.0 1834 - F NR\_MT\_SDT-Core

- Nokia indicates that we have used this ‘else if or’ in other places in the specification, so nothing is broken. ZTE agrees with Nokia and even in RRC we use similar construct.

- Huawei thought it is clear how it was changed and how it is written now is confusing. LG has some sympathy in Ericsson proposal and would like to change in all other places.

- Nokia thinks that this would then not be a Cat F CR.

=> The two changes are equivalent but it is not clear whether the change is needed.

=> Not pursued

[R2-2404486](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404486.zip) Correction on sdt-LogicalChannelSR-DelayTimer applicability Nokia, Nokia Shanghai Bell CR Rel-18 38.321 18.1.0 1774 2 F NR\_SmallData\_INACTIVE-Core, NR\_MT\_SDT-Core [R2-2403083](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403083.zip)

=> The CR is agreed

**SDT Topics from TEI-18 agenda items (moved from 7.24.x)**

**RAN3 LS related**

[R2-2404123](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404123.zip) Reply LS on SDT signalling optimization for partial context transfer (R3-242198; contact: ZTE) RAN3 LS in Rel-18 TEI18 To:RAN2

[R2-2404541](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404541.zip) SDT signalling optimization for partial context transfer ZTE Corporation, Sanechips LS out To:RAN3

*Proposal: RAN2 should inform RAN3 that sending RRCSetup during SDT procedure would result in the data loss due release of all UP radio bearers and signalling overhead due to extra signalling needed to reestablish the security context and to reconfigure all the radio bearers*

=> Noted

[R2-2404488](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404488.zip) SDT signalling optimization Nokia discussion Rel-18 TEI18

*Observation: RAN2 solution for SDT signaling optimization is applicable for Rel-18 UEs supporting SDT.*

*Proposal: Reply to RAN3 LS as in [1] indicating that there is no RAN2 impact foreseen by the network-based solution, and this is supported already by Rel-17 SDT UEs.*

=> Noted

[R2-2405649](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405649.zip) Discussion on RAN3 LS on SDT signalling optimization for partial context transfer Huawei, HiSilicon discussion Rel-18 TEI18

*Proposal 1: RAN2 replies to RAN3 that:*

*1. Fallback from RRC Resume procedure to RRC connection establishment makes the UE release its security context, all of its data radio bearers and its entire RRC configuration (except default values) causing service and data interruption as well as additional procedures to be triggered in both AS and upper layers.*

*2. Fallback from RRC Resume procedure to RRC connection establishment is supposed to be utilized by the network only in exceptional cases, i.e. in case the retrieval of the UE context from the anchor gNB is not possible.*

*3. The solution which was introduced by RAN2 is very simple and its additional complexity on top of baseline SDT functionality is negligible.*

*4. The benefits of the NW-based solution proposed by RAN3 over the legacy mechanism (i.e. release the UE to RRC INACTIVE and perform Paging) are unclear.*

Discussion

- Ericsson agrees with observations of ZTE and Huawei. The reply should be that there are no impacts to RAN2 and the concerns are already clear.

- Qualcomm has similar understanding as ZTE and Huawei and the impact is that there is data loss.

- Intel thinks that RRCSetup clears the data and it doesn’t serve the purpose that RAN3 is trying to achieve.

- CATT supports Nokia proposals and thinks that NAS layer retransmission would solve the issue.

- LG thinks that there is no spec impact but there are RAN2 impact which is data loss.

- Nokia thinks that some of these signaling issues have been there since Rel-15, but the new SDT issue is data loss.

=> Reply to LS:

- No specification impact (for Rel-17 and 18)

- However, there are RAN2 issues, like data loss (explain the issue) and Uu signaling overhead due to security being cleared (explain that as from Rel-15 …)

* [AT126][033][SDT] LS reply to RAN3 (ZTE)

Intended outcome: agree to LS by email

Deadline: 05-24-24

[R2-2404489](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404489.zip) Draft reply LS on SDT signalling optimization for partial context transfer Nokia LS out Rel-18 TEI18 To:TSG RAN WG3

R2-2406007 Draft-Reply LS on SDT signalling optimization for partial context transfer ZTE LS out Rel-18 TEI18 To:RAN3

**Other topics**

[R2-2404546](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404546.zip) Paging monitoring for extended CG period [CG-SDT-Enh] ZTE Corporation, Sanechips, Mediatek, Qualcomm CR Rel-18 38.331 18.1.0 4788 - F TEI18

- Ericsson agrees with this proposal as there are benefits

- Huawei thinks this forces the UE to implement two different behaviours and wonders if this is for redcap UEs only. LG agrees that we shouldn’t have different behaviour. While T319 is not running the UE monitors paging.

- ZTE explains that the issue is for RA-SDT hence the reason for separating.

- Qualcomm indicates that the main issues is that the UE should monitor paging before T319a starts when there is a long gap. Huawei thinks that we are already monitoring paging when T319a is not running. ZTE is just linking this behavior to long gap. But maybe we can tie to UE capability. Further the redcap UEs cannot monitor this and also Rel-17 has a different behavior. At least we need to cover that case.

=> The CR is postponed

=> Noted

[R2-2404490](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404490.zip) SDT BFR timer being not configured [RA-SDT\_BeamFailure] Nokia, Sony, Nokia Shanghai Bell CR Rel-18 38.321 18.1.0 1814 1 F TEI18 [R2-2403087](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403087.zip)

=> The CR is agreed

[R2-2405648](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405648.zip) Correction for resumeIndication [SDT\_ReleaseEnh] Huawei, HiSilicon, Nokia, ZTE Corporation, Sanechips, Intel Corporation CR Rel-18 38.300 18.1.0 0848 1 F TEI18 [R2-2403108](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403108.zip)

=> The CR is agreed

## 7.19 Enhanced support of reduced capability NR devices

(NR\_redcap\_enh-Core; leading WG: RAN1; REL-18; WID: [RP-232671](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_101/Docs/RP-232671.zip))

WI is declared 100% complete

Time budget: 0 TU

Tdoc Limitation: 1 Tdocs

### 7.19.1 Organizational

Incoming LSs, CR rapporteur’s miscellaneous non-controversial corrections, etc.

[R2-2404113](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404113.zip) Reply LS on 2-step RACH for eRedCap (R1-2403646; contact: Ericsson) RAN1 LS in Rel-18 NR\_redcap\_enh-Core To:RAN2

[R2-2404135](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404135.zip) Reply LS on Rel-18 RedCap enhancements to address remaining ENs in TS 23.502 (S2-2405421; contact: Huawei) SA2 LS in Rel-18 NR\_redcap\_enh-Core To:RAN2, RAN3, CT1 Cc:CT4

[R2-2404240](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404240.zip) Miscellaneous corrections on TS 38.304 for eRedCap Huawei, HiSilicon CR Rel-18 38.304 18.1.0 0401 - F NR\_redcap\_enh-Core

[R2-2404443](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404443.zip) Miscellaneous corrections on TS 38.321 for eRedCap vivo (Rapporteur) CR Rel-18 38.321 18.1.0 1835 - F NR\_redcap\_enh-Core

[R2-2405318](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405318.zip) Miscellaneous corrections for eRedCap Ericsson CR Rel-18 38.331 18.1.0 4729 2 F NR\_redcap\_enh-Core [R2-2403861](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403861.zip)

[R2-2405319](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405319.zip) RIL List for eRedCap - after RAN2#125bis Ericsson discussion Rel-18 NR\_redcap\_enh-Core [R2-2403397](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403397.zip)

### 7.19.2 Papers related to RILs

Papers related to identified RILs

[R2-2404431](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404431.zip) Clarification on RIL V179 for eRedcap and proposed TP to RRC Xiaomi Communications discussion

### 7.19.3 Other

*Critical corrections, if any.*

[R2-2404241](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404241.zip) Discussion on 2-step RACH for eRedCap Huawei, HiSilicon discussion Rel-18 NR\_redcap\_enh-Core

[R2-2404444](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404444.zip) Discussion on remaining issues for eRedCap vivo, Guangdong Genius discussion Rel-18 NR\_redcap\_enh-Core

[R2-2404471](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404471.zip) Correction on (e)Redcap 1 Rx and 2 Rx barring Nokia CR Rel-18 38.331 18.1.0 4632 3 F NR\_redcap-Core, NR\_redcap\_enh-Core [R2-2403841](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403841.zip)

[R2-2404515](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404515.zip) RA issues on eRedCap Nokia discussion NR\_redcap\_enh-Core

[R2-2404901](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404901.zip) MAC corrections for supporting 2-step RACH for eRedCap ZTE Corporation, Sanechips discussion Rel-18 NR\_redcap\_enh-Core

[R2-2405071](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405071.zip) 2-step RACH for eRedCap NEC discussion Rel-18 NR\_redcap\_enh-Core

[R2-2405326](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405326.zip) Discussion on 2-step RA for eRedCap UEs Ericsson discussion Rel-18 NR\_redcap\_enh-Core

[R2-2405333](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405333.zip) Draft LS reply on 2-step RA for eRedCap Ericsson LS out Rel-18 NR\_redcap\_enh-Core To:RAN1

[R2-2405540](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405540.zip) On CFRA procedure for eRedCap UE LG Electronics Inc., Xiaomi discussion Rel-18 NR\_redcap\_enh-Core

## 7.20 NR MIMO evolution

(NR\_MIMO\_evo\_DL\_UL-Core; leading WG: RAN1; REL-18; WID: [RP-233028](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_98e/Docs/RP-223276.zip))

Time budget: 0TU

Tdoc Limitation: 2 tdoc

### 7.20.1 Organizational

Rapporteur input, i.e., WI/Spec Rapporteur(s) are invited to provide updated open issues lists that need to be handled.

Incoming LS.

Stage 2 corrections.

[R2-2404215](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404215.zip) Correction to MIMO Evolution Ericsson CR Rel-18 38.331 18.1.0 4775 - F NR\_MIMO\_evo\_DL\_UL-Core

[R2-2405589](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405589.zip) Clarification of PDCCH ordered CFRA for 2TA NTT DOCOMO, INC., Samsung draftCR Rel-18 38.300 18.1.0 F NR\_MIMO\_evo\_DL\_UL-Core

### 7.20.2 MAC

Corrections to MAC.

Discussions and propsoals on the open issues if listed by Rapporteur(s) or triggered by LSs, ect..

[R2-2404374](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404374.zip) Discussion on PHR-Related Issues for STx2P CATT discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2404487](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404487.zip) Correction on multi-TRP STx2P PHR MAC CE Nokia discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2404555](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404555.zip) Remaining issues on STx2P PHR LG Electronics Inc. discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2405171](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405171.zip) Corrections on PHR Samsung discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2405182](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405182.zip) Cosideration On PHR and PHR MA CE for STxMP ZTE Corporation discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2405426](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405426.zip) Discussion on introducing 8Tx in MAC specification ASUSTeK discussion Rel-18 38.321 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2405489](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405489.zip) RAN4 impacts of 2TA for SDT Xiaomi discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

### 7.20.3 RRC

Corrections to RRC, RILs.

Discussions and proposals on the open issues if listed by Rapporteur(s) or triggered by LSs, ect..

[R2-2404214](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404214.zip) Remaining aspects on RRC for MIMOevo Ericsson discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2404375](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404375.zip) [C520] [C521] [C522] [C523] [C524] Discussion on RRC Corrections for MIMO CATT discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2405172](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405172.zip) Clarification on UE capability enquiry with codebook type request Samsung discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2405183](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405183.zip) Consideration on 2TA RRC Aspect ZTE Corporation discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2405222](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405222.zip) [H169] Configuration of RACH for MIMO with 2TA Huawei, HiSilicon discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2405690](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405690.zip) Aperiodic CSI report with 2 resources for channel measurement and unified TCI framework Huawei, HiSilicon discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

## 7.21 Further NR coverage enhancements

(NR\_cov\_enh2-Core; leading WG: RAN1; REL-18; WID: [RP-221858](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_96/Docs/RP-221858.zip))

Time budget: 0 TU

Tdoc Limitation: 1 tdoc

### 7.21.1 Organizational

Incoming LSs, Rapporteur input etc.

Editorials/clarifications should not be included in any tdoc but sent to the WI spec rapporteurs, who can submit a rapporteur CR as part of this AI.

Rapporteur inputs and other pre-assigned documents in this AI do not count towards the tdoc limitation.

[R2-2405056](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2405056.zip) Micellaneous MAC corrections for CE ZTE Corporation CR Rel-18 38.321 18.1.0 1851 - F NR\_cov\_enh2-Core

[R2-2405387](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405387.zip) Updated RIL List for CE (based on v102) Huawei, HiSilicon discussion NR\_cov\_enh2-Core

[R2-2405388](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405388.zip) RRC CR for agreed Coverage Enhancements RILs Huawei, HiSilicon CR Rel-18 38.331 18.1.0 4833 - F NR\_cov\_enh2-Core

### 7.21.2 Other Essential corrections

[R2-2404156](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404156.zip) Correction on CFRA with Msg1 Repetition vivo discussion Rel-18 NR\_cov\_enh2-Core

[R2-2404225](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404225.zip) Correction to PHR MAC CE Design for assumed PUSCH reporting Samsung, Nokia, Nokia Shanghai Bell, Lenovo, NEC, Interdigital, Ericsson, Qualcomm, Vivo discussion Rel-18 NR\_cov\_enh2-Core

[R2-2404259](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404259.zip) Discussion on remaining issues for Coverage Enhancements Ericsson discussion Rel-18 38.321 NR\_cov\_enh2-Core

[R2-2404948](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404948.zip) [S831] Discussion on the remainging issues on Msg1 repetition CATT discussion Rel-18 NR\_cov\_enh2-Core

[R2-2405057](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405057.zip) RACH-ConfigCommon for SI request with Msg1 repetition ZTE Corporation discussion Rel-18 NR\_cov\_enh2-Core

[R2-2405068](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405068.zip) Remaining issues for preamble repetitions ETRI discussion

[R2-2405389](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405389.zip) [S831] Discussion on SI-RequestConfig for MSG1 repetition Huawei, HiSilicon discussion NR\_cov\_enh2-Core

[R2-2405541](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405541.zip) On RACH partition selection on RedCap-specific initial BWP for Msg1-based SI request LG Electronics Inc. discussion Rel-18 NR\_cov\_enh2-Core

[R2-2405583](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405583.zip) Discussion on time offset of RO group for CFRA with Msg1 repetition China Telecom discussion Rel-18 NR\_cov\_enh2-Core

## 7.22 Void

## 7.23 Timing Resiliency and URLLC Enh

(NR\_TRS\_URLLC; leading WG: RAN3; REL-18; WID: [RP-230754](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_99/Docs/RP-230754.zip))

Time budget: 0 TU

Tdoc Limitation: 1 tdoc

### 7.23.1 Organizational

Incoming LSs, Rapporteur input etc.

[R2-2404462](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404462.zip) Corrections to URLLC and Timing Resiliency Ericsson, Nokia CR Rel-18 38.331 18.1.0 4667 2 F TRS\_URLLC-NR-Core [R2-2403722](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403722.zip)

=> Update cover page and clean changes

=> the CR is agreed in [R2-2405927](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405927.zip) with the changes above

R2-2405927 Corrections to URLLC and Timing Resiliency Ericsson, Nokia CR Rel-18 38.331 18.1.0 4667 3 F TRS\_URLLC-NR-Core

=> Agreed

### 7.23.2 General

Essential corrections only.

### 7.25.3 Other

RAN3, SA2, SA3, CT1 led items and others, e.g. eNPN, Slicing, NTN self evaluation issues, etc.

[R2-2405682](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405682.zip) Supporting 3MHz Uplink Bandwidth with 5MHz or wider Channel Bandwidth Rakuten Mobile, Inc draftCR Rel-18 38.306 18.1.0 B NR\_FR1\_lessthan\_5MHz\_BW\_Ph2

## 7.24 TEI18

Specific items may be allocated to a breakout session for treatment.

Time budget: 1 TU

### 7.24.1 TEI proposals by Other Groups

Items initiated by other groups that is/has been communicated by LS, where the other group indicate this is TEI18. (Specific other-group-WIs should use the R18 Other Agenda Item below).

[R2-2404147](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404147.zip) Reply LS on the user consent for trace reporting (S5-242221; contact: Ericsson) SA5 LS in Rel-18 TEI18 To:RAN3 Cc:RAN2, SA2, SA3

**SDT – Related to RAN3 LS – to be treated with SDT**

[R2-2404123](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404123.zip) Reply LS on SDT signalling optimization for partial context transfer (R3-242198; contact: ZTE) RAN3 LS in Rel-18 TEI18 To:RAN2

[R2-2404488](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404488.zip) SDT signalling optimization Nokia discussion Rel-18 TEI18

[R2-2404489](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404489.zip) Draft reply LS on SDT signalling optimization for partial context transfer Nokia LS out Rel-18 TEI18 To:TSG RAN WG3

[R2-2404541](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404541.zip) SDT signalling optimization for partial context transfer ZTE Corporation, Sanechips LS out To:RAN3

[R2-2405649](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405649.zip) Discussion on RAN3 LS on SDT signalling optimization for partial context transfer Huawei, HiSilicon discussion Rel-18 TEI18

### 7.24.2 TEI proposals by RAN2

Items initiated in RAN2 for NR and LTE.

No contributions should be submitted under 7.24.2. They should be submitted under 7.24.x

Tdoc limitation: 1 tdoc, limitation applicable to new proposals. No new Cat. B proposals expected for this meeting

#### 7.24.2.0 In Principle agreed CRs

**To be treated in SL relay and Positioning breakout session**

[R2-2404245](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404245.zip) Remove of AS condition checking of SUI for U2N Relay communication OPPO, Apple CR Rel-18 38.351 18.1.0 0035 - F TEI18, NR\_SL\_relay\_enh-Core [R2-2402210](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402210.zip) Withdrawn

[R2-2404246](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404246.zip) Remove of AS condition checking of SUI for U2N Relay communication OPPO, Apple CR Rel-18 38.331 18.1.0 4645 1 F TEI18, NR\_SL\_relay-Core [R2-2402210](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402210.zip)

[R2-2404509](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404509.zip) [B021] Missing posSibType2-17a in list of posSIB types [PosL2RemoteUE] MediaTek Inc., Lenovo CR Rel-18 38.331 18.1.0 4767 1 F TEI18 [R2-2403792](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403792.zip)

[R2-2405253](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405253.zip) LPP support for sub 1s location information reporting periodicity [Sub\_1s\_periodicity] Ericsson, AT&T, T-Mobile, Vivo, Deutsche Telekom, Huawei, HiSilicon, Vodafone CR Rel-18 37.355 18.1.0 0501 3 B TEI18 [R2-2403973](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403973.zip)

[R2-2405254](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405254.zip) Corrections for Bluetooth AoA/AoD [BT-AoA-AoD] Ericsson, Intel Corporation CR Rel-18 37.355 18.1.0 0502 1 F TEI18 [R2-2403794](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403794.zip)

**To be treated in MBS breakout session**

[R2-2405114](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405114.zip) Correction on MBS search spaces configuration for (e)Redcap [RedCapMBS\_Bcast] Huawei, CATT, Xiaomi, HiSilicon CR Rel-18 38.331 18.1.0 4689 1 F TEI18, NR\_MBS\_enh-Core, NR\_redcap\_enh-Core [R2-2402770](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402770.zip)

=> Revised in R2-2405772.

R2-2405772 Correction on MBS search spaces configuration for (e)Redcap [RedCapMBS\_Bcast] Huawei, CATT, Xiaomi, HiSilicon CR Rel-18 38.331 18.1.0 4689 2 F TEI18, NR\_MBS\_enh-Core, NR\_redcap\_enh-Core

#### 7.24.2.1 2Rx XR

Contributions on signaling support for ‘2Rx non-REDCAP XR devices’ as per RP-234015. Co-source contributions are highly encouraged.

[R2-2404454](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404454.zip) 38331\_Correction for the selected band for 2RX XR UE capability checking Xiaomi Communications draftCR Rel-18 38.331 18.1.0 TEI18, NR\_XR\_enh-Core

=> Not pursued

[R2-2405646](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405646.zip) Correction for cell barring for 2Rx XR UE [2Rx\_XR\_Device] Huawei, HiSilicon CR Rel-18 38.331 18.1.0 4851 - F TEI18

- Xiaomi is concerned as the UE only decide what band to use after this section.

- Qualcomm is not sure about both CRs as this situation might never happen. Apple thinks we can add in the definition of 2RX XR “in the band”. Nokia also thinks that nothing may be needed. LG thinks we can consider Apple’s approach, but we can also add a note to further clarify. .

- Vodafone and AT&T doesn’t think it should be captured as a NOTE.

=> Not pursued

[R2-2404520](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404520.zip) [B020] Correction of cell barred indication value for 2Rx XR [2Rx\_XR\_Device] Lenovo draftCR Rel-18 38.331 18.1.0 TEI18

=> Revise to remove the brackets from B020, make it a real CR 4858, and agreed in [R2-2405926](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405926.zip)

7.24.2.1 R2-2404520 R2-2405926 [B020] Correction of cell barred indication value for 2Rx XR [2Rx\_XR\_Device] Lenovo CR Rel-18 38.331 18.1.0 4858 TEI18

[R2-2405647](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405647.zip) Correction on cell status for 2Rx XR UE [2Rx\_XR\_Device] Huawei, HiSilicon CR Rel-18 38.304 18.1.0 0408 - F TEI18

=> The CR is agreed

#### 7.24.2.2 Other RAN2 TEI-18

Contributions should focus only critical issues/corrections for already agreed TEI-18 topics. NCo-sourcing of such proposals is encouraged. Contributions on items that were explicitly downprioritized from Rel-18 WIs should not be brought as TEI18. No new Cat. B proposals expected for this meeting

Including outcome of [POST125bis][019][Emergency Calls] Common solution (Lenovo)

**Emergency calls**

[R2-2404257](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404257.zip) Summary of [POST125bis][019][Emergency Calls] Common solution (Lenovo) Lenovo discussion

Proposal 1: Continue discussion in RAN2#126 on common solution for allowing EM Calls, following two points are to be resolved:

Question A: [Requirement] RAN2 kindly seek operator input to see if there’s a need to differentiate among features with respect to EM Calls support. Example: Allow EM calls to UE-A barred due to a feature-x but not to UE-B barred due to feature-y, if both UE-A and UE-B support EM calls on ‘this’ cell?

Question B: [Feasibility] RAN2 kindly clarify if there are some hardware/ technical limitations (beyond temporary performance degradation) prohibiting EM Calls by a UE on a certain cell, needing separate/ specific EM call exemption.

Proposal 2: Endorsed R17 RedCap CRs can be approved.

[R2-2405645](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405645.zip) Barring exemption for emergency calls Huawei, HiSilicon discussion Rel-18 TEI18

Proposal 1: A solution enabling barring exemption for emergency calls should not allow the UEs to ignore MIB barring.

*Proposal 2: RAN2 to introduce a general rule that barring exemption for emergency calls is allowed for eRedCap and 2Rx XR UEs (no other R18 features) in case there is no barring in MIB and discuss which of the barring exemption solutions to introduce:*

*• Option 1:*

*o Barring exemption bit is kept for RedCap UEs (as agreed)*

*o There is no additional barring exempt bit in SIB1 for eRedCap and 2Rx XR UEs*

*o New common CRs for eRedCap and 2Rx XR UEs are prepared while the endorsed CRs for RedCap UEs are kept as they are*

*• Option 2:*

*o barringExemptRedCap bit is replaced with a common barringExemptEmergencyCall bit applicable to RedCap, eRedCap and 2Rx XR UEs*

*o Separate CRs are prepared for TS 38.304 for RedCap UEs (early implementable) and for eRedCap and 2Rx XR UEs.*

- Lenovo thinks option 2, with common bit is preferable. Apple prefers option 1 as that will complicate things, we have R17 CR and then Rel-18 different solution

- TIM thinks that emergency call allowance should be done on a per use case basis. For example, if it is a robot it doesn’t make sense, but if it is a smartphone we can consider.

- Nokia prefers option 1.

- Qualcomm thinks option 2 will allow us to add more features in the future.

- TMobile is not sure any of this options.

- ZTE has a slight preference for option 2.

- Ericsson also wonders if we need to differentiate.

- Nokia and Oppo think we should have separate control to 2RX XR UEs. ZTE doesn’t understand why we won’t separate control. Nokia explains that redcap UEs can be 1Rx.

- Vodafone thinks that 2RX XR should be default behavior. CATT would like to have network control

*Discussion on whether to consider NES (i.e. ignore MIB barring)*

- Vodafone and Fraunhaufer thinks that it would be a fundamental change. Qualcomm thinks that this use case is not strong engouht. Nokia, Ericsson, ZTE, CATT, thinks we can leave NES out of this discussion.

- Apple thinks that in the future, the UE may not have a legacy layer.

- Oppo also thinks that NES should be out of scope as the intention and logic is quite different

- Lenovo thinks that all UEs should be allowed to make emergency calls.

- BT is not ready to make a decision.

- ZTE thinks that if we really want to fix NES is to not use MIB barring. Since we have MIB barring we don’t want to have exceptions for that purpose.

- Samsung and BT ask what happens if the NW doesn’t support this. Apple explains that there are other conditions the UE will have to check before it gets to the EM call barring. Huawei thinks that we can do this check in 304 CR.

Aftercome back on EM NES

- BT will organize an offline to discuss MIB barring case for NES. Vodafone thinks that we won’t be able to do much for MIB barring in Rel-18 and this would result in NBC. Qualcomm thinks that it can be done in BC way. Apple indicates yes but with addition of SIB1. ZTE thinks that we may need to undo MIB barring and this would work even for Rel-15. Qualcomm wouldn’t like that solution.

- Tmobile thinks that any solution would be much worst than the actual problem.

- BT wouldn’t want to change the MIB for all devices, just NES. Huawei doesn’t thinks this is an issue in the field, if it does happen that there are only NES cells the network can just unbar the MIB and this would be ok for these very rare case. We can reject them when they try to access. Tmobile agrees with Huawei and ZTE and this can be handled by network implementation.

**Agreements**

1 NES (i.e. ingoring MIB barring) will not be considered in our common solution discussion. FFS if anything specific for NES will need to be done. If anything needs to be done, it would not be part of the common solution.

2 For Rel-18, we introduce 1 bit that enables EM call for RedCap, eRedCap, and 2Rx XR. One RRC Rel-18 with magic sentence that it is early implementable in Rel-17. A CR for 38.304 doesn’t need to have the magic sentence.

3 This replaces the previous agreement and we will notify RAN3 verbally via delegates

* [AT126][002][XR] CR to 331 and 304(Apple)

Intended outcome: Review CRs

Deadline: 05-24-24

R2-2405940 Summary of Offline #002 ([AT126][002][XR] CR to 331 and 304) Apple discussion Rel-18 TEI18

[R2-2404461](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404461.zip) Analysis on Common solution for EM calls Lenovo discussion Late

[R2-2404540](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404540.zip) Enabling emergency calls in a barred cell ZTE Corporation, Sanechips discussion

[R2-2404643](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404643.zip) Introduction of barring exemption for RedCap UEs for emergency calls [RedCap\_EM\_Call] Apple, China Telecom, Vodafone, Verizon, TMobile USA, ZTE, Vivo, Ericsson CR Rel-18 38.304 18.1.0 0380 3 B TEI18 [R2-2402903](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402903.zip)

R2-2405937 Introduction of barring exemption for RedCap UEs for emergency calls [RedCap\_EM\_Call] Apple, China Telecom, Vodafone, Verizon, TMobile USA, ZTE, Vivo, Ericsson, Nokia CR Rel-18 38.304 18.1.0 0380 4 B TEI18

=> Revised in R2-2405956

R2-2405956 Introduction of barring exemption for RedCap UEs for emergency calls [RedCap\_EM\_Call] Apple, China Telecom, Vodafone, Verizon, TMobile USA, ZTE, Vivo, Ericsson, Nokia CR Rel-18 38.304 18.1.0 0380 5 B TEI18

[R2-2404644](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404644.zip) Introduction of barring exemption for RedCap UEs for emergency calls [RedCap\_EM\_Call] Apple, China Telecom, Vodafone, Verizon, TMobile USA, ZTE, Vivo, Ericsson CR Rel-18 38.331 18.1.0 4570 2 B TEI18 [R2-2402902](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402902.zip)

R2-2405938 Introduction of barring exemption for RedCap UEs for emergency calls [RedCap\_EM\_Call] Apple, China Telecom, Vodafone, Verizon, TMobile USA, ZTE, Vivo, Ericsson, Nokia CR Rel-18 38.331 18.1.0 4570 3 B TEI18

=> Revised in R2-2405957

R2-2405957 Introduction of barring exemption for RedCap UEs for emergency calls [RedCap\_EM\_Call] Apple, China Telecom, Vodafone, Verizon, TMobile USA, ZTE, Vivo, Ericsson, Nokia CR Rel-18 38.331 18.1.0 4570 4 B TEI18

[R2-2404645](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404645.zip) Introduction of barring exemption for eRedCap UEs for emergency calls [eRedCap\_EM\_Call] Apple, China Telecom, Vodafone, Verizon, TMobile USA, ZTE, Vivo, Ericsson CR Rel-18 38.304 18.1.0 0381 3 B TEI18 [R2-2403472](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403472.zip)

=> Revised in R2-2405939

R2-2405939 Introduction of barring exemption for (e)RedCap and 2RX XR UEs for emergency calls [EM\_Call\_Exemption] Apple, China Telecom, Vodafone, Verizon, TMobile USA, ZTE, Vivo, Ericsson. Nokia CR Rel-18 38.304 18.1.0 0381 4 B TEI18

=> Revised in R2-2405951

R2-2405951 Introduction of barring exemption for (e)RedCap and 2RX XR UEs for emergency calls [EM\_Call\_Exemption] Apple, China Telecom, Vodafone, Verizon, TMobile USA, ZTE, Vivo, Ericsson. Nokia CR Rel-18 38.304 18.1.0 0381 5 B TEI18

=> Revised in R2-2405958

R2-2405958 Introduction of barring exemption for (e)RedCap and 2RX XR UEs for emergency calls [EM\_Call\_Exemption] Apple, China Telecom, Vodafone, Verizon, TMobile USA, ZTE, Vivo, Ericsson. Nokia CR Rel-18 38.304 18.1.0 0381 6 B TEI18

[R2-2404646](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404646.zip) Introduction of barring exemption for eRedCap UEs for emergency calls [eRedCap\_EM\_Call] Apple, China Telecom, Vodafone, Verizon, TMobile USA, ZTE, Vivo, Ericsson CR Rel-18 38.331 18.1.0 4571 2 B TEI18 [R2-2402904](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402904.zip)

[R2-2404647](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404647.zip) Introduction of barring exemption for UEs for emergency calls [EM\_Call\_Exemption] Apple, T-Mobile USA CR Rel-18 38.304 18.1.0 0402 - B TEI18

Redirection [CB]

[R2-2404430](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404430.zip) Correction on redirection to GERAN [Redirect\_to\_GERAN] vivo, Qualcomm Incorporated, Samsung, Vodafone CR Rel-18 36.331 18.1.0 5000 1 F TEI18 [R2-2402330](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402330.zip)

**CIO\_in\_reportconfig**

[R2-2405596](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405596.zip) Potential correction for cell individual offset in ReportConfig [CIO\_in\_ReportConfig] NTT DOCOMO, INC., Qualcomm Incorporated, Ericsson discussion Rel-18

*Proposal 1. Discuss whether RAN2 should avoid limitation of CIO configuration in report configiguration and introduce indication of frequency in reportConfig.*

*Proposal 2. If it is concluded that an indication of frequency in reportConfig is introduced, apply the changes in Annex A.*

- Huawei and LG thinks that this can be handled by NW implementation. Samsung agrees but this would reduce signaling overhead, so it would be good to have this type of enhancement. Ericsson agrees with Samsung.

- ZTE supports the proposal.

- Qualcomm asks what happens if this is not provided. Samsung explains that we can’t make it mandatory and if it is not signalled all MO apply the CIO. It is to save signaling overhead.

=> An indication of frequency in reportConfig is introduced, apply the changes in Annex A in the final CR

=> Noted

[R2-2404976](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404976.zip) [E230] Clarification on CIO configured within ReportConfig [CIO\_in\_ReportConfig] Ericsson, NTT DOCOMO, INC., Qualcomm Incorporated CR Rel-18 38.331 18.1.0 4707 1 F TEI18 [R2-2403184](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403184.zip)

=> Update the CR with the agreement from [R2-2405596](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405596.zip)

=> Revised in R2-2405930 and reviewed over email

R2-2405930 Clarification on CIO configured within ReportConfig [CIO\_in\_ReportConfig] Ericsson, NTT DOCOMO, INC., Qualcomm Incorporated CR Rel-18 38.331 18.1.0 4707 2 F TEI18

* [AT126][008][CIO] CR to 38.331 (Ericsson)

Intended outcome: agree to CR by email

Deadline: 05-24-24

**meas\_report\_enh**

[R2-2404973](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404973.zip) Enhancements to measurement report [meas\_report\_enh] Ericsson, T-Mobile USA, Turkcell, Rakuten Mobile, BT Plc., NTT Docomo, Deutsche Telekom, MediaTek Inc., Verizon, AT&T, Vodafone, Continental Automotive, KDDI, Charter, NEC, Telecom Italia, CATT, Reliance Jio, Qualcomm Incorporated CR Rel-18 38.331 18.1.0 4803 - B TEI18

=> Revised in R2-2405993

R2-2405993 Enhancements to measurement report [meas\_report\_enh] Ericsson, T-Mobile USA, Turkcell, Rakuten Mobile, BT Plc., NTT Docomo, Deutsche Telekom, MediaTek Inc., Verizon, AT&T, Vodafone, Continental Automotive, KDDI, Charter, NEC, Telecom Italia, CATT, Reliance Jio, Qualcomm Incorporated CR Rel-18 38.331 18.1.0 4803 1 B TEI18

[R2-2404974](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404974.zip) Enhancements to measurement report [meas\_report\_enh] Ericsson, T-Mobile USA, Turkcell, Rakuten Mobile, BT Plc., NTT Docomo, Deutsche Telekom, MediaTek Inc., Verizon, AT&T, Vodafone, Continental Automotive, KDDI, Charter, NEC, Telecom Italia, CATT, Reliance Jio, Qualcomm Incorporated CR Rel-18 38.306 18.1.0 1110 - B TEI18

=> Revised in R2-2405994

R2-2405994 Enhancements to measurement report [meas\_report\_enh] Ericsson, T-Mobile USA, Turkcell, Rakuten Mobile, BT Plc., NTT Docomo, Deutsche Telekom, MediaTek Inc., Verizon, AT&T, Vodafone, Continental Automotive, KDDI, Charter, NEC, Telecom Italia, CATT, Reliance Jio, Qualcomm Incorporated CR Rel-18 38.306 18.1.0 1110 1 B TEI18

[R2-2404975](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404975.zip) Discussion on enhancements to measurement report [meas\_report\_enh] Ericsson, T-Mobile USA, Turkcell, Rakuten Mobile, BT Plc., NTT Docomo, Deutsche Telekom, MediaTek Inc., Verizon, AT&T, Vodafone, Continental Automotive, KDDI, Charter, NEC, Telecom Italia, CATT, Reliance Jio, Qualcomm Incorporated discussion Rel-18 TEI18

Proposal 1 After performing measurements according to the existing RAN4 requirements, if a measurement report is triggered the UE reports a new indication within MeasResults IE to indicate if an event entering condition for the cell is satisfied for the first time.

Proposal 2 After performing measurements according to the existing RAN4 requirements, if a measurement report is triggered the UE reports a new indication within MeasResults IE to indicate which cell(s) fulfilled the event leaving condition.

Proposal 3 After performing measurements according to the existing RAN4 requirements, UE triggers a measurement report when the best cell among the ones previously reported changes.

Proposal 4 RAN2 to introduce new UE capabilities in case these new informations to be reported are agreed.

[R2-2405141](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405141.zip) On enhancing the measurement reporting (report when the order in maxReportCells is changed) Nokia discussion Rel-18 TEI18

*Proposal 1: To solve the problem of preparation of the best “x” cells and execution to the best cell RAN2 agrees to use either:*

*- the solution for re-ordering mechanism triggering a new event or*

*- use of multiple thresholds for the same event linked to same Measurement Object.*

[R2-2405490](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405490.zip) Discussion on measurement reporting enhancements LG Electronics Inc. discussion

[R2-2405635](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405635.zip) Alternative solution for reporting best cell change ZTE Corporation discussion Rel-18 TEI18

*Proposal 1: For reporting best cell change, to introduce an indication (e.g. reportOnlyIfBestCellChange) in ReportConfigNR, used to indicate the UE to only send periodical event MR if the best neighbour cell has changed. The field is optionally configured when reportAmount >1.*

- Huawei thinks this is combining event based and periodical. Nokia explains that N would be configurable so it is up to the network.

Discussion

*Proposal 3 After performing measurements according to the existing RAN4 requirements, UE triggers a measurement report when the best cell among the ones previously reported changes.*

*For reporting best cell change, to introduce an indication (e.g. reportOnlyIfBestCellChange) in ReportConfigNR, used to indicate the UE to only send periodical event MR if the best neighbour cell has changed. The field is optionally configured when reportAmount >1.*

*Consider up to N Best cell change*

- Huawei thinks it is more reasonable to skip and increment UE variable by 1. ZTE thinks that both solutions work but chose this one as it is simpler.

- LG asks if we consider CIO. ZTE hasn’t considered it.

Agreements:

1 After performing measurements according to the existing RAN4 requirements, if a measurement report is triggered the UE reports a new indication within MeasResults IE to indicate if an event entering condition for the cell is satisfied for the first time.

2 After performing measurements according to the existing RAN4 requirements, if a measurement report is triggered the UE reports a new indication within MeasResults IE to indicate which cell(s) fulfilled the event leaving condition.

*3* For reporting best cell change, to introduce an indication (e.g. reportOnlyIfBestCellChange) in ReportConfigNR, used to indicate the UE to only send periodical event MR if the best neighbour cell has changed. The field is optionally configured when reportAmount >1.

*4* as a compromise we will limit N=2 and new capability. Send a report if either first best cell has changed or the second best cell has change

5 RAN2 to introduce new UE capabilities in case these new informations to be reported are agreed.

After CB one compromise is to make N to 2

- Nokia can accept the compromise. Huawei thinks that N 1 already solves the problem we were trying to address in the same place, but can compromise if all companies are ok.

- Qualcomm is concerned that if N2 we have to do testing for both N=1 and 2 case. So we would need to add another capability. Apple and Oppo also thinks that we would need a new capability. LG thinks that if we add another capability it can be greater than 2.

- CATT and Oppo think that 1 is sufficient.

=> as a compromise we will limit N=2 and new capability. Send a report if either first best cell has changed or the second best cell has change.

* [AT126][007][Meas Enh] Review TP and CR (Ericsson)

Intended outcome: Review TP and agree to CR after meeting

Deadline: Thursday

**SDT – to be handled with SDT section**

[R2-2405648](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405648.zip) Correction for resumeIndication [SDT\_ReleaseEnh] Huawei, HiSilicon, Nokia, ZTE Corporation, Sanechips, Intel Corporation CR Rel-18 38.300 18.1.0 0848 1 F TEI18 [R2-2403108](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403108.zip)

[R2-2404490](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404490.zip) SDT BFR timer being not configured [RA-SDT\_BeamFailure] Nokia, Sony, Nokia Shanghai Bell CR Rel-18 38.321 18.1.0 1814 1 F TEI18 [R2-2403087](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403087.zip)

[R2-2404546](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404546.zip) Paging monitoring for extended CG period [CG-SDT-Enh] ZTE Corporation, Sanechips, Mediatek, Qualcomm CR Rel-18 38.331 18.1.0 4788 - F TEI18

[R2-2404758](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404758.zip) Correction to on-demand SIB request [OdSIBReq] Huawei, HiSilicon, Ericsson, Qualcomm CR Rel-18 38.331 18.1.0 4796 - B TEI18

**To be handled in positioning breakout**

[R2-2405575](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405575.zip) Corrections related to LPP RILs E001-E003 and Q033 due to agreed CT4 corrections [LocalCoords] Ericsson CR Rel-18 37.355 18.1.0 0510 - F TEI18

=> Revised in [R2-2405858](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405858.zip)

[R2-2405858](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405858.zip) Corrections related to LPP RILs E001-E003 and Q033 due to agreed CT4 corrections [LocalCoords] Ericsson CR Rel-18 37.355 18.1.0 0510 1 F TEI18

=> Revised in R2-2405861

R2-2405861 Corrections related to LPP RILs E001-E003 and Q033 due to agreed CT4 corrections [PosLocalCoords] Ericsson, Qualcomm Incorporated CR Rel-18 37.355 18.1.0 0510 2 F TEI18

**MBS related – to be treated in breakout session**

[R2-2404993](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404993.zip) Clarifications for MBS RedCap CFR Ericsson, CATT CR Rel-18 38.300 18.1.0 0864 - F TEI18, NR\_MBS-Core, NR\_redcap-Core, NR\_redcap\_enh-Core

=> Revised in R2-2405773

R2-2405773 Clarifications for MBS RedCap CFR Ericsson, CATT CR Rel-18 38.300 18.1.0 0864 1 F TEI18, NR\_MBS-Core, NR\_redcap-Core, NR\_redcap\_enh-Core

[R2-2404994](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404994.zip) Clarification for RedCap UE supporting MBS broadcast Ericsson CR Rel-18 38.306 18.1.0 1111 - F TEI18, NR\_MBS-Core, NR\_redcap-Core, NR\_redcap\_enh-Core

[R2-2404995](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404995.zip) Scheduling restrictions with RedCap CFR and eRedCap Ues Ericsson discussion Rel-18 TEI18, NR\_MBS-Core, NR\_redcap-Core, NR\_redcap\_enh-Core

[R2-2405130](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405130.zip) Correction on the configuration of Redcap CFR [RedCapMBS\_Bcast] Huawei, HiSilicon CR Rel-18 38.331 18.1.0 4816 - F TEI18, NR\_MBS\_enh-Core, NR\_redcap\_enh-Core

[R2-2405558](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405558.zip) MBS operation with eDRX MICO [TEI18 NR\_MBS\_enh] Nokia, Ericsson CR Rel-18 38.304 18.1.0 0399 1 F TEI18 [R2-2403598](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403598.zip)

## 7.25 R18 Other

Specific items may be allocated to a breakout session for treatment.

Impacts from Other RAN WGs and TSGs that has no separate TU budget in RAN2. LS ins for Rel-18 specific WIs/SIs that has no RAN WI.

Clarification CRs should be discussed with spec rapporteurs of the topic prior to submission.

Time budget: 2 TU

Tdoc Limitation: -

### 7.25.1 RAN4 led items

#### 7.25.1.1 Lower MSD capability

#### 7.25.1.2 Intra-band non-collocated NR-CA. EN-DC

#### 7.25.1.3 TCI State Switch indication for HST

#### 7.25.1.4 FR2 Multi Rx operation

#### 7.25.1.5 FR2 SCell Enhancements

#### 7.25.1.6 ATG

[R2-2405529](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2405529.zip) Clarification on ATG Timing advance Reporting procedures Samsung discussion Rel-18 NR\_ATG-Core

*Proposal 1: RAN2 to discuss how to handle switching of SCSes via BWP-switching for timing advance reporting:*

*• offsetThresholdTA-r18*

*• Timing Advance field in TAR MAC CE*

*Proposal 2: RAN2 to choose between*

*1) Clarifying that SCS is based on SCS of active BWP*

*2) Clarifying that SCS is based on SCS of initial BWP*

*3) Any other solution*

=> we will address the issue next meeting (if needed)

- Samsung would prefer option 2. ZTE would prefer a simple solution. Huawei thinks it should be the active BWP. CATT and Qualcomm think that the current spec already specifies option 1, so there is no issue in current spec.

#### 7.25.1.7 Other

*Including Less than 5MHz, BWP operation without restrictions, measurement gaps, etc*

[R2-2404119](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404119.zip) Reply LS on RRC network assistant signalling for advanced receiver on MU-MIMO scenario (R1-2403750; contact: China Telecom) RAN1 LS in Rel-18 NR\_demod\_enh3-Core To:RAN2, RAN4

=> Noted

[R2-2405585](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405585.zip) Correction on RRC signalling for advanced receiver China Telecom, CATT CR Rel-18 38.331 18.1.0 4673 1 F NR\_demod\_enh3-Core [R2-2402536](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402536.zip)

[R2-2405699](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405699.zip) RIL list for Advanced receivers CATT, China Telecom discussion Rel-18 NR\_demod\_enh3-Core

[R2-2405213](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405213.zip) E173, E174 Remaining issues on Advanced receivers Ericsson discussion Rel-18 NR\_demod\_enh3-Core

E173

*Proposal 1 RAN2 to agree to to delete the optionality of the BOOLEAN value for the parameters in IE AdvancedReceiver-MU-MIMO .*

- Qualcomm indicates that we discussed in last meeting and we agreed they are not needed. China telecom indicates that the current signaling has been confirmed by RAN4.

E174

*Proposal 3 RAN2 to remove the parameters advReceiver-MU-MIMO-DCI-1-1 within the IE AdvancedReceiver-MU-MIMO and add in the corresponding field description in IE PDSCH-Config: “Configure the presence of the co-scheduled UE information filed in DCI format 1\_1 (see TS 38.212 [17], clause 7.3.1.2.2).”.*

- Nokia has sympathy for these proposals. QUlacomm thinks that this parameter is a requirement from RAN4 and they confirmed.

- Nokia thinks we didn’t discussed this in a suitable way, we asked RAN4 but they are not signaling experts.

[R2-2405664](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405664.zip) Discussion on remaining issues for Advanced receivers [E174] Huawei, HiSilicon discussion Rel-18 NR\_demod\_enh3-Core

[CB]

[R2-2405491](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405491.zip) [N143] On DM-RS power boosting assumption for advanced receivers Nokia discussion NR\_demod\_enh3-Core

=> N143 is agreed

[R2-2404743](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404743.zip) Discussion on the power boosting parameter for advance receivers MediaTek Inc. discussion NR\_demod\_enh3-Core

=> Noted

[R2-2405584](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405584.zip) Discussion on RRC signalling for advanced receiver on MU-MIMO scenario China Telecom, CATT discussion Rel-18 NR\_demod\_enh3-Core

=> Noted

R2-2405991 Reply LS to RAN2 on RRM enhancements for NR FR2 HST (R4-2410285; contact: Samsung) RAN4 LS in Rel-18 NR\_HST\_FR2\_Enh To:RAN2

**NR\_BWP\_wor-Core**

[R2-2404128](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404128.zip) Reply LS on BWP operation without bandwidth restriction (R4-2406500; contact: vivo, Vodafone) RAN4 LS in Rel-18 To:RAN2, RAN1

=> Noted

[R2-2404557](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404557.zip) Discussion on reply LS from RAN4 on NCD-SSB for PSCell vivo, Vodafone discussion Rel-18 NR\_BWP\_wor-Core

Proposal 1: RAN2 to discussion how to capture the restriction on NCD-SSB measurement applicable for PCell and PSCell:

- Option 1: Keep RAN2 specification as it is, i.e. no change in RAN2.

- Option 2: Add a restriction in stage-2 specification. Detailed TP is provided in Annex.

[R2-2405515](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405515.zip) Discussion on BWP operation without bandwidth restriction for PSCell Huawei, HiSilicon discussion Rel-18 NR\_BWP\_wor

Proposal 2: Introduce a new UE capability for the NCD-SSB based L1/L3 measurement function for PSCell.

- ZTE doesn’t support this capability as this is not the intention from RAN4 LS.

- Ericsson thinks that if we have to test for both Pcell and PScell.

=> No separate capability will be added

=> Update ncd-SSB-BWP-Wor-r18 description to add PScell “NOTE: this feature applies only to PCell and PSCell”.

=> UE capability rapporteur will capture change

=> Noted

*Discussion*

- Vodafone and Oppo would have a preference for option 2. Huawei and Ericsson thinks we don’t need to capture anything.

[R2-2404445](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404445.zip) Miscellaneous corrections on TS 38.300 for BWP operation without restriction vivo CR Rel-18 38.300 18.1.0 0837 1 D NR\_BWP\_wor-Core [R2-2402621](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402621.zip)

=> The CR is not pursued

[R2-2404446](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404446.zip) [V994][V995] Miscellaneous corrections on TS 38.331 for BWP operation without restriction vivo CR Rel-18 38.331 18.1.0 4679 1 F NR\_BWP\_wor-Core [R2-2402623](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402623.zip)

=> The CR is agreed

[R2-2404877](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404877.zip) RIL list for BWP\_Wor vivo discussion Rel-18 NR\_BWP\_wor-Core

=> Noted

**4Rx\_low\_NR\_band\_handheld\_3Tx\_NR\_CA\_ENDC-Core**

[R2-2404129](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404129.zip) LS on 3Tx SAR solution for inter-band CA with PC1.5 (R4-2406579; contact: Huawei) RAN4 LS in Rel-18 To:RAN2

=> Noted

[R2-2405511](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405511.zip) Discussion on 3Tx SAR for inter-band CA with PC1.5 Huawei, HiSilicon discussion Rel-18 4Rx\_low\_NR\_band\_handheld\_3Tx\_NR\_CA\_ENDC-Core

=> Noted

[R2-2405512](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405512.zip) Correction on 3Tx SAR for inter-band CA with PC1.5 Huawei, HiSilicon CR Rel-17 38.306 17.8.0 1122 - F 4Rx\_low\_NR\_band\_handheld\_3Tx\_NR\_CA\_ENDC-Core

- Huawei explains that there is no legacy network support PC1.5

=> work on some rewording offline

* [AT126][025][3Tx SAR] 38.306 CR (HUawei)

Intended outcome: agree to CR and shadow CR by email

Deadline: 05-24-24

R2-2405946 Correction on 3Tx SAR for inter-band CA with PC1.5 Huawei, HiSilicon CR Rel-17 38.306 17.8.0 1122 1 F 4Rx\_low\_NR\_band\_handheld\_3Tx\_NR\_CA\_ENDC-Core

[R2-2405513](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405513.zip) Correction on 3Tx SAR for inter-band CA with PC1.5 Huawei, HiSilicon CR Rel-18 38.306 18.1.0 1123 - A 4Rx\_low\_NR\_band\_handheld\_3Tx\_NR\_CA\_ENDC-Core

=> Revised in R2405947

R2-2405947 Correction on 3Tx SAR for inter-band CA with PC1.5 Huawei, HiSilicon CR Rel-18 38.306 18.1.0 1123 1 A 4Rx\_low\_NR\_band\_handheld\_3Tx\_NR\_CA\_ENDC-Core

[R2-2405514](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405514.zip) Draft LS reply on 3Tx SAR solution for inter-band CA with PC1.5 Huawei, HiSilicon LS out Rel-18 4Rx\_low\_NR\_band\_handheld\_3Tx\_NR\_CA\_ENDC-Core To:RAN4

=> The LS is approved in R2-2405943 with the final CR attached

R2-2405943 LS reply on 3Tx SAR solution for inter-band CA with PC1.5 RAN2 LS out Rel-18 4Rx\_low\_NR\_band\_handheld\_3Tx\_NR\_CA\_ENDC-Core To:RAN4

=> Approved

**NR\_FR1\_lessthan\_5MHz\_BW**

[R2-2404131](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404131.zip) LS on UE Capability for Asymmetric BW for less than 5 MHz (R4-2406717; contact: Rakuten) RAN4 LS in Rel-18 NR\_FR1\_lessthan\_5MHz\_BW To:RAN2, RAN1

=> Noted

[R2-2404278](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404278.zip) Introduction of NR support for dedicated spectrum less than 5MHz for FR1 Qualcomm Incorporated CR Rel-18 38.331 18.1.0 4525 3 B NR\_FR1\_lessthan\_5MHz\_BW-Core [R2-2403961](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403961.zip)

* [AT126][028][less5MHz] RRC CR (Qualcomm)

Intended outcome: Agree to 38.331 CR by email

Deadline: 05-24-24

R2-2406010 Introduction of NR support for dedicated spectrum less than 5MHz for FR1 Qualcomm Incorporated CR Rel-18 38.331 18.1.0 4525 4 B NR\_FR1\_lessthan\_5MHz\_BW-Core

[R2-2404279](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404279.zip) Introduction of NR support for dedicated spectrum less than 5MHz for FR1 Qualcomm Incorporated CR Rel-18 36.331 18.1.0 4983 3 B NR\_FR1\_lessthan\_5MHz\_BW-Core [R2-2403962](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403962.zip)

=> The CR is agreed

=> Revised in R2-2406011

R2-2406011 Introduction of NR support for dedicated spectrum less than 5MHz for FR1 Qualcomm Incorporated CR Rel-18 36.331 18.1.0 4983 4 B NR\_FR1\_lessthan\_5MHz\_BW-Core

[R2-2405565](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405565.zip) Less than 5Mhz operation Nokia discussion Rel-18 NR\_FR1\_lessthan\_5MHz\_BW-Core

*Proposal 1: Remove conditional presence of “LessThan5Mhz” from fields to Need R i.e. for fields dl-CarrierFreq-r18, frequencyBandList-r18*

*Proposal 2: Rename measidleCarrierListNR-LessThan5Mhz and measReselectionCarrierListNR-LessThan5Mhz to generic ones and not require using these field always when configuring cells supporting 12,15 or 20 PRBs.*

=> Address the issue by specifying: If neighborcell list is being broadcasted in a cell with other than 3MHz then it is mandatory otherwise it is not mandaty.

Not treated – waiting for RAN1 discussion/input

[R2-2404746](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404746.zip) Consideration on the AsymmetricBandwidthCombinationSet for Less than 5M ZTE Corporation, Sanechips discussion Rel-18 NR\_FR1\_lessthan\_5MHz\_BW-Core

=> Some of these aspects should be brought up during mega CR review after RAN1 also has made some agreements.

*=>* Noted

[R2-2404831](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404831.zip) Support of asymmetric bandwidth for less than 5 MHz Huawei, HiSilicon discussion Rel-18 NR\_FR1\_lessthan\_5MHz\_BW

[R2-2404832](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404832.zip) Correction of 38.331 to support asymmetric bandwidth for less than 5 MHz (Opt-1) Huawei, HiSilicon CR Rel-18 38.331 18.1.0 4800 - F NR\_FR1\_lessthan\_5MHz\_BW

[R2-2404833](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404833.zip) Correction of 38.306 to support asymmetric bandwidth for less than 5 MHz (Opt-1) Huawei, HiSilicon CR Rel-18 38.306 18.1.0 1108 - F NR\_FR1\_lessthan\_5MHz\_BW

[R2-2404834](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404834.zip) Correction of 38.306 to support asymmetric bandwidth for less than 5 MHz (Opt-2) Huawei, HiSilicon CR Rel-18 38.306 18.1.0 1109 - F NR\_FR1\_lessthan\_5MHz\_BW

[R2-2405516](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405516.zip) Introduction of UE capability for BWP operation without bandwidth restriction for PSCell Huawei, HiSilicon CR Rel-18 38.306 18.1.0 1124 - B NR\_BWP\_wor

[R2-2405517](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405517.zip) Introduction of UE capability for BWP operation without bandwidth restriction for PSCell Huawei, HiSilicon CR Rel-18 38.331 18.1.0 4843 - B NR\_BWP\_wor

[R2-2405673](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405673.zip) Correction to the AsymmetricBandwidthCombinationSet for Less than 5M Case ZTE Corporation, Sanechips CR Rel-18 38.306 18.1.0 1125 - F NR\_FR1\_lessthan\_5MHz\_BW-Core

=> Revised in [R2-2405712](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405712.zip)

[R2-2405712](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405712.zip) Correction to the AsymmetricBandwidthCombinationSet for Less than 5M Case ZTE Corporation, Sanechips CR Rel-18 38.306 18.1.0 1125 1 F NR\_FR1\_lessthan\_5MHz\_BW-Core

[R2-2405692](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405692.zip) Discussion on LS from RAN4 on 3Mhz Uplink Asymmetric BW Support Rakuten Mobile, Inc discussion Rel-18

### 7.25.2 RAN1 led items

E.g. UL Tx Switching, MC enhancements, DSS

[R2-2405992](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405992.zip) LS on UE capability for multi-carrier enhancement (R4-2410299; contact: vivo) RAN4 LS in Rel-18 NR\_MC\_enh-Core To:RAN2 Cc:RAN1

[CB]

[R2-2405371](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405371.zip) Rapp RRC CR for MC enhancement Huawei, HiSilicon, NTT DOCOMO INC, Samsung, Ericsson, OPPO CR Rel-18 38.331 18.1.0 4832 - F NR\_MC\_enh-Core

* [AT126][026][MC enh] CR to 331 (Huawei )

Intended outcome: Agree to CR

Deadline: 05-24-24

R2-2406008 Rapp RRC CR for MC enhancement Huawei, HiSilicon, NTT DOCOMO INC, Samsung, Ericsson, OPPO CR Rel-18 38.331 18.1.0 4832 1 F NR\_MC\_enh-Core

[R2-2405372](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405372.zip) RIL list for MC enhancement Huawei, HiSilicon report Rel-18 NR\_MC\_enh-Core

=> Noted

[R2-2405370](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405370.zip) Clarification to the band pair reporting Huawei, HiSilicon, Qualcomm Incorporated CR Rel-18 38.306 18.1.0 1115 - F NR\_MC\_enh-Core

=> The CR is agreed

[R2-2405597](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405597.zip) Discussion on RAN4 agreement for Multi-carrier enhancements NTT DOCOMO, INC. discussion Rel-18

=> Confirm that RAN2 do not introduce UE capability to report preferred switching pattern.

=> Noted

[R2-2405394](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405394.zip) Clarification on deactivated or dormant cells in multi-cell scheduling Samsung CR Rel-18 38.321 18.1.0 1859 - F NR\_MC\_enh-Core

- ZTE thinks that the CR is not needed. In this section we don’t specify what the UE shall do, we specify what the UE should not do. It is very clear what the UE should do based on RAN1 spec.

=> Remove impact analysis from cover page

* [AT126][027][MC enh] 38.321 CR (Samsung)

Intended outcome: Agree to CR (if no concerns after checking with RAN1 are identified)

Deadline: 05-24-24

R2-2405955 Clarification on deactivated or dormant cells in multi-cell scheduling Samsung CR Rel-18 38.321 18.1.0 1859 1 F NR\_MC\_enh-Core

### 7.25.3 Other

RAN3, SA2, SA3, CT1 led items and others, e.g. eNPN, Slicing, NTN self evaluation issues, etc.

# 8 Rel-19

## 8.0 General

*This AI is reserved for Rel-19 LSs from other WGs*. *No contributions are expected on these LSs for this meeting*

LS of 5G Femto

[R2-2404141](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404141.zip) LS on Support of UE move between CAG cell of 5G Femto and CSG cell (S2-2405813; contact: NTT DOCOMO) SA2 LS in Rel-19 FS\_5G\_Femto, FS\_NR\_WAB\_5GFemto To:RAN2, RAN3

*In TR 23.700-45, the WT#2 (mapped to KI#1 in the TR) investigates the support of the UE moving between CAG cell of 5G Femto and CSG cell, with no impact on the RAN. Therefore, some companies proposed below solutions for this KI:*

*1 The UE partitions CSG-CAG ID and constructs mapped CSG/CAG ID, and reports to the NG-RAN or E-UTRAN (depending on the considered mobility direction) as described in pCR (S2-2405814).*

*2 RAN recognizes the target CSG cell (or the target CAG cell) as an open cell during the handover (e.g., via local configuration) and the core network performs access control as described in pCR (S2-2405789).*

- Lenovo thinks that we don’t need to respond and SA2 didn’t expect changes for RAN2.

- ZTE explains that they discussed whether there is UE impact or not and they couldn’t decide so they asked us.

- Ericsson thinks solution 1 has UE impact but not solution 2. Samsung has some concerns on solution 2 as it can cause handover failure and we would have RAN impact as well. Nokia agrees with the handover concerns.

- ZTE, Nokia and Huawei think that current solution 2 has no UE impact.

- Samsung indicates that if we want to address the handover failure case there will be UE impact

=> Confirm there is UE impact for Solution 1

=> Majority of companies assume that solution2 is NW-based solution with no UE impact, from RAN2 perspective. However, some concerns with handover failure have been raised, that may result in UE or RAN3 impact, but RAN2 hasn’t had time to have a detailed technical discussion.

=> Noted

**Reply LS draft**

[R2-2405936](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405936.zip) Reply LS on Support of UE move between CAG cell of 5G Femto and CSG cell

=> Add that RAN2 didn’t have time to discuss the technical aspects.

=> Delete last part

=> Update: Majority of companies assume that solution2 is NW-based solution with no UE impact, from RAN2 perspective. However, some concerns with handover failure have been raised, that may result in UE or RAN3 impact, but RAN2 hasn’t had time to have a detailed technical discussion.

=> The LS will be revised in R2-2405942

* [AT126][024][Femto] LS reply (LG)

Intended outcome: approve LS by email

Deadline: 05-24-24

Other LS

[R2-2404142](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404142.zip) LS on FS\_VMR\_Ph2 solution impacts to RAN (S2-2405822; contact: Qualcomm) SA2 LS in Rel-19 FS\_VMR\_Ph2 To:RAN3 Cc:RAN2

=> Noted

[R2-2404114](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404114.zip) LS to RAN2 on CBSR for Rel-19 MIMO (R1-2403650; contact: Samsung) RAN1 LS in Rel-19 NR\_MIMO\_Ph5 To:RAN2

=> Noted

[R2-2404132](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404132.zip) LS on 3T6R and 4T6R antenna switching SRS (R4-2406718; contact: Huawei) RAN4 LS in Rel-19 NR\_ENDC\_RF\_Ph4-Core To:RAN1 Cc:RAN2

=> Noted

Not treated (No input was expected for this meeting)

[R2-2405463](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405463.zip) Discussion on UE handover between CAG cell of 5G Femto and CSG Cell Samsung discussion Rel-19 FS\_5G\_Femto, FS\_NR\_WAB\_5GFemto

[R2-2405464](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405464.zip) (Draft) reply LS on support of UE move between CAG cell of 5G Femto and CSG Cell Samsung LS out Rel-19 FS\_5G\_Femto, FS\_NR\_WAB\_5GFemto To:SA2 Cc:RAN3

[R2-2405502](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405502.zip) RAN2 impact of SA2 solutions for handover between CSG and CAG cells LG Electronics Inc. discussion FS\_5G\_Femto

[R2-2405523](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405523.zip) DRAFT Reply LS on Support of UE move between CAG cell of 5G Femto and CSG cell LG Electronics Inc. LS out Rel-19 FS\_5G\_Femto To:SA2

=> Revised in R2-2405936

R2-2405936 DRAFT Reply LS on Support of UE move between CAG cell of 5G Femto and CSG cell LG Electronics Inc. LS out Rel-19 FS\_5G\_Femto To:SA2

=> Revised in R2-2405942

R2-2405942 DRAFT Reply LS on Support of UE move between CAG cell of 5G Femto and CSG cell LG Electronics Inc. LS out Rel-19 FS\_5G\_Femto To:SA2

[R2-2405683](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405683.zip) Discussion on CSG-CAG mobility ZTE Corporation, Sanechips discussion Rel-19 FS\_NR\_WAB\_5GFemto

[R2-2405684](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405684.zip) (Draft) reply LS on support of UE move between CAG cell of 5G Femto and CSG Cell ZTE Corporation, Sanechips LS out Rel-19 FS\_NR\_WAB\_5GFemto To:SA2 Cc:RAN3

[R2-2405713](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405713.zip) Discussion on SA2 LS regarding UE mobility between CAG cell of 5G Femto and CSG cell Huawei, HiSilicon discussion Rel-19

## 8.1 AI/ML for NR air interface

(NR\_AIML\_air-Core; leading WG: RAN1; REL-19; WID: [RP-240774](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_103/Docs/RP-240774.zip))

Time budget: 2 TU

Tdoc Limitation: 5 tdocs

### 8.1.1 Organizational

LS, Rapporteur input, including workplan, etc.

[R2-2405264](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405264.zip) Rapporteur input for Rel-19 WI on AI/ML for NR air interface Ericsson discussion Rel-19 NR\_AIML\_air-Core

=> Noted

### 8.1.2 Functionality based LCM

Contributions should focus on general understanding of LCM procedure (except for data collection and model transfer/delivery), what is required to enable the UE to perform different steps of the LCM procedure, what is the granularity of functionality, dependencies with RAN1 and what is needed from RAN1 to progress in RAN2

Contributions should be submitted in 8.1.2.x and aspects related to data collections should be submitted in data collection section

Two-sided model discussions are out of scope of this AI

. Model identification and model transfer/delivery is out of scope of this AI and will be discussed in RAN2#127 after further RAN1 progress

#### 8.1.2.1 LCM for NW-sided model for Beam Management use case

LCM related to NW-sided model for beam management use case only

##### ***Additional conditions:***

[R2-2405024](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405024.zip) Discussion on LCM for NW-sided model for BM CMCC discussion Rel-19 NR\_AIML\_air-Core

*Proposal 4: UE-side additional conditions (e.g. UE speed) can be reported to gNB for management. FFS on the details of necessary UE-side additional conditions.*

=> Noted

[R2-2404274](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404274.zip) On LCM for NW-sided model for Beam Management Use Case Qualcomm Incorporated discussion Rel-19

*Proposal 2: For the network-side model development, the required additional condition is left up to the network implementation.*

*Proposal 3: For RAN2 waits for RAN1 conclusion on*

*- Whether CSI reporting can be used for training data collection, and*

*- Dependence of NW-sided models on UE-side additional condition*

*before discussing data collection configuration and reporting, and reporting of UE-side additional conditions for LCM (training and monitoring) for NW-side models for beam management use case.*

=> Noted

Discussion

- Xiaomi, Apple and LG agree with Qualcomm. ZTE agrees with CMCC about UE speed. Samsung thinks that it is likely there will be a need for additional condition but we can wait for RAN1.

##### ***Inference:***

[R2-2404150](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404150.zip) LCM for NW-sided model for Beam Management use case OPPO discussion Rel-19 NR\_AIML\_air-Core

*Proposal 3: For network-sided model for BM use case, RAN2 confirms that UE inputs for network-sided model inference will rely on L1 signaling, RAN2 will not further spend time on this aspect.*

=> Noted

[R2-2404690](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404690.zip) Discussion on LCM for NW-sided model for Beam Management use case CATT discussion Rel-19 NR\_AIML\_air-Core

*Proposal 1: RAN2 wait for RAN1’s more progress on configuration of Set A and Set B for BM-Case1 and BM-Case2 before discussing the potential RRC configurations for radio measurements and the related reporting.*

*Proposal 2: For inference, RAN2 assumes for NW-sided model, no discussion is needed in RAN2 until triggered by RAN1 input.*

=> Noted

Discussion

- CATT thinks that there are some ongoing discussions. LG thinks that OPPO’s proposal is aligned with RAN1 agreeement.

##### ***Monitoring:***

[R2-2404598](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404598.zip) Discussion on LCM for NW-sided model for BM Xiaomi discussion

*Proposal 1: NW can configure UE to report performance monitoring data to assist NW-sided model LCM.*

*Proposal 2: Performance monitoring data report can be triggered by periodic, event or NW request.*

=> Noted

[R2-2405185](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405185.zip) Consideration on LCM for NW side Model for AIML based BM ZTE Corporation discussion Rel-19 NR\_AIML\_air-Core

*Proposal 3: RAN2 assumes layer 1 measurement framework can be utilized for UE to report the performance metrics to NW for NW side functionality/model management, the detail shall be discussed in RAN1, whether there is any RAN2 spec impact is FFS.*

=> Noted

[R2-2405265](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405265.zip) LCM for NW-side models for beam management Ericsson discussion Rel-19 NR\_AIML\_air-Core

Observation 2 The gNB should monitor its own performance according to the inference process for which it is also responsible.

*Proposal 1 RAN2 will work on RAN2 specifications enhancements associated to gNB-side model monitoring, only based on RAN1 inputs, if any.*

**Agreements for NW-sided model for Beam Management**

1 For the network-side model, required network side additional condition is left up to the network implementation

2 RAN2 will wait for RAN1 for any required UE side additional conditions.

3 For network-sided model for BM use case, RAN2 confirms that UE inputs for inference at network-sided model will rely on L1 signaling, RAN2 will not further spend time on this aspect.

4 The gNB is responsible for monitoring its own performance. RAN2 will work on RAN2 specifications enhancements associated to gNB-side model monitoring, only based on RAN1 inputs, if any

[R2-2404150](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404150.zip) LCM for NW-sided model for Beam Management use case OPPO discussion Rel-19 NR\_AIML\_air-Core

[R2-2404184](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404184.zip) Beam management NW-sided model LCM signaling Intel Corporation discussion Rel-19 NR\_AIML\_air-Core

[R2-2404220](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404220.zip) LCM for Positioning use case NEC discussion

[R2-2404274](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404274.zip) On LCM for NW-sided model for Beam Management Use Case Qualcomm Incorporated discussion Rel-19

[R2-2404340](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404340.zip) Discussion on the LCM of NW-sided model for Beam Management Fujitsu discussion Rel-19 NR\_AIML\_air-Core

[R2-2404389](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404389.zip) Discussion on LCM for NW-sided model for Beam Management vivo discussion Rel-18 NR\_AIML\_air-Core

[R2-2404502](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404502.zip) LCM for NW-sided model for Beam Management use case Interdigital Inc. discussion Rel-19 NR\_AIML\_air-Core

[R2-2404598](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404598.zip) Discussion on LCM for NW-sided model for BM Xiaomi discussion

[R2-2404636](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404636.zip) LCM procedure of NW-sided model for AI/ML based beam management Apple discussion Rel-19 NR\_AIML\_air-Core

[R2-2404690](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404690.zip) Discussion on LCM for NW-sided model for Beam Management use case CATT discussion Rel-19 NR\_AIML\_air-Core

[R2-2404940](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404940.zip) LCM related to NW-side models for Beam Management Nokia discussion Rel-19 NR\_AIML\_air-Core

[R2-2405024](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405024.zip) Discussion on LCM for NW-sided model for BM CMCC discussion Rel-19 NR\_AIML\_air-Core

[R2-2405179](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405179.zip) Functionality-based LCM for NW sided model Samsung discussion Rel-19 NR\_AIML\_air-Core

[R2-2405185](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405185.zip) Consideration on LCM for NW side Model for AIML based BM ZTE Corporation discussion Rel-19 NR\_AIML\_air-Core

[R2-2405265](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405265.zip) LCM for NW-side models for beam management Ericsson discussion Rel-19 NR\_AIML\_air-Core

[R2-2405272](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405272.zip) Discussion on LCM for NW-Side Models Futurewei Technologies discussion Rel-19

[R2-2405336](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405336.zip) Discussion on functionality based LCM for NW-sided model for BM Huawei, HiSilicon discussion NR\_AIML\_air-Core

#### 8.1.2.2 LCM for UE-sided model for Beam Management use case

Including functionality identification, additional conditions and further reporting of applicable functionalities

##### ***Terminology alignment:***

[R2-2404691](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404691.zip) Discussion on LCM for UE-sided model for Beam Management use case CATT discussion Rel-19 NR\_AIML\_air-Core

Proposal 6: RAN2 to adopt the following definitions of functionality selection, activation, deactivation, switching, and fallback operation.

*Functionality/model activation:* Enable an AI/ML functionality/model for a specific AI/ML-enabled feature.

*Functionality/model deactivation:* Disable an AI/ML functionality/model for a specific AI/ML-enabled feature.

*Functionality/model selection:* The process of selecting an AI/ML functionality/model for activation among multiple functionalities/models for the same AI/ML enabled feature. Note: Functionality/model selection may or may not be carried out simultaneously with functionality/model activation.

*Functionality/model switching:* Deactivating a currently active AI/ML functionality/model and activating a different AI/ML functionality/model for a specific AI/ML-enabled feature.

*Functionality/model fallback:* Deactivating a currently active AI/ML functionality/model and fallback to non-AI/ML operation.

=> Noted

[R2-2405180](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405180.zip) Functionality-based LCM for UE sided model Samsung discussion Rel-19 NR\_AIML\_air-Core

Proposal 2: RAN2 agree the following definition for functionality types as a starting point.

- *Supported/identified functionalities:* this refers to functionalities that UE can indicate by using UE capabilities.

- *Configured functionalities:* this refers to functionalities that gNB can configure UE for model inference and performing measurements for training purposes?. Depending on proactive/reactive approach, configured functionalities may or may not be applicable upon configuration.

- *Applicable functionalities:* this refers to functionalities that the UE is ready to apply for model inference. It can be considered as candidates for functionality activation.

- *Activated functionalities:* this refers to functionalities that the UE starts predicting beam results via model inference.

*Proposal 6: RAN2 focus on functionality activation/deactivation assuming that switching and fallback are supported via activation/deactivation.*

- Nokia thinks this is a bit premature

- Lenovo thinks that we can make this from the UE perspective, and how it is implemented can be FFS. LG thinks that some procedure will be different.

=> Noted

[R2-2404390](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404390.zip) Discussion on LCM for UE-sided model for Beam Management vivo discussion Rel-18 NR\_AIML\_air-Core

Proposal 1 From the RAN2’s view, functionality fallback/switching can be achieved by functionality (re-)configuration/activation/deactivation. Thus, RAN2 does not need to define separate functionality fallback/switching procedures.

=> Noted

Discussion

- LG, ZTE and Apple thinks Samsung proposal’s make sense. Lenovo thinks that we should align “configured” with “configurable”. Intel thinks we should add training as the UE will also need a configuration so it can do training.

- FUturewith thinks that functionality based we don’t need de-activation. Intel explains that de-activation is fallback to legacy. Samsung this that we don’t know yet and it depends on what functionality is for what use case and it could refer to switching.

##### ***(Functionality)Availability:***

[R2-2404151](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404151.zip) LCM for UE-sided model for Beam Management use case OPPO discussion Rel-19 NR\_AIML\_air-Core

*Proposal 2: For UE-sided model for BM use case, RAN2 assumes only if UE really has the model available UE can additionally report UE-sided applicable functionality associated with the available model via non-UE capability signaling.*

[R2-2405266](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405266.zip) LCM for UE-side models for beam management Ericsson discussion Rel-19 NR\_AIML\_air-Core

*Proposal 2 Introduce signalling for the UE to inform the gNB whether the AI/ML functionality is available for operation (e.g., whether there are trained models available within it). FFS whether the “availability indication” can be reported as part of the applicability-reporting information, or as a separate signalling.*

- Qualcomm thinks that the only thing that needs to be report is applicable functionality. ZTE has the same understanding as Ericsson.

- CATT agrees with Oppo as it is similar to applicability.

- Samsung also agrees that it is similar to applicability.

##### ***Network side additional conditions:***

[R2-2404185](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404185.zip) Beam management UE-sided model LCM signaling Intel Corporation discussion Rel-19 NR\_AIML\_air-Core

*Proposal 8: Associated ID in relation with NW-side additional condition is transmitted via RRC signalling, together with data collection related configuration. RAN2 to wait further progress in RAN1 about other details of NW-side additional condition.*

=> Noted

[R2-2405184](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405184.zip) Considerations on LCM for UE side Model for AIML Based BM ZTE Corporation discussion Rel-19 NR\_AIML\_air-Core

*Proposal 5: RAN2 to wait for RAN1 decision on the consistency of NW-side additional condition across training and inference for UE-sided model issue before start to discuss the impact on RAN2 on what is needed for UE to determine applicability of a functionality for network side additional conditions.*

=> Noted

Discussion

- Qualcomm, Samsung, LG thinks that we can make some assumptions in RAN2.

RAN1 agreed that gNB provide NW side to make sure of consistency between inference and training. There are two options associate ID and another one.

##### ***UE side additional/applicability conditions:***

[R2-2405337](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405337.zip) Discussion on function ality based LCM for UE-sided model for BM Huawei, HiSilicon discussion NR\_AIML\_air-Core

*Proposal 4: It is proposed RAN2 to agree that the UE considers UE-side additional conditions when determining functionality applicability, and there is no need to directly exchange UE-side additional conditions between UE and NW.*

=> Noted

[R2-2404599](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404599.zip) Discussion on LCM for UE-sided model for BM Xiaomi discussion

*Proposal 13: NW can configure UE to report UE side additional condition.*

=> Noted

[R2-2404185](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404185.zip) Beam management UE-sided model LCM signaling Intel Corporation discussion Rel-19 NR\_AIML\_air-Core

*Proposal 2: Existing UAI framework is used at least for proactive reporting of applicable functionality. FFS reactive*

*Proposal 3: Beam management UE-side applicable functionality includes the mapping between the measured number of beams in Set B and the number of predicted beams in Set A. FFS on other additional conditions.*

*Proposal 4: During proactive reporting of UE-side applicable functionality, network configures UE via RRC signalling about whether to allow UE reports assistance information.*

*Proposal 5: During reactive reporting of UE-side applicable functionality network configures the candidate values for UE-side applicable functionality on top of configuration for proactive reporting. FFS on the granularity of candidate values.*

*Proposal 5a: During reactive reporting of UE-side applicable functionality, network further configures reporting events (e.g. deployment scenario change, UE speed change, UE memory change, etc), UE reports its applicable functionality if its applicability/preference is changed and the reporting event(s) are met via UEAssitanceInformation. FFS on the reporting events for UE-side additional information reporting.*

Discussion

- LG thinks that we should respond with RRC configuration complete for the reactive approach. Intel thinks that there is no immediately respond with RRC configuration complete.

- Qualcomm doesn’t think the UE needs to report additional conditions. The first steps should be to understand the size of the information and whether SRB1 can be used. Ericsson thinks that we should understand what reactive/proactive means.

- NEC thinks that proactive reporting is more than one time reporting.

* [POST126][032][AI/ML PHY] LCM (Intel/Samsung)

Intended outcome:

Phase 1: Agreable definitions (Samsung)

Phase 2: Reach common understanding of reactive/proactive framework for applicable functionality.

Deadline: long

**Agreements**

1 RAN2 will support functionality activation/deactivation after inference configuration. FFS initial state of configuration and how activation/deactivation is achieved. FFS what Deactivation refers to: examples discussed: 1) fallback to legacy 2) switching, etc.

2 We will work offline on the definitions for functionality types and define what is availability.

3 The UE will indicate the gNB/LMF whether the AI/ML functionality is available/applicable. For a functionality to be applicable at least there should at least one model available within it. FFS other details on what is applicability/non-applicability.

4 For NW-side additional conditions, RAN2 assumes that RRC signaling from gNB to UE can be designed for consistency between inference and training. RAN2 will wait for RAN1 input for further details. FFS if the same applies to positioning

5 For BM use case, As a baseline the UE determines whether a functionality is applicable. Existing UAI framework is used at least for proactive reporting of applicable functionality. FFS reactive

##### ***Applicable functionalities (determination and indication to the network):***

[R2-2404817](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404817.zip) Discussion on applicability-related information and additional condition Lenovo discussion Rel-19

*Proposal 1 RAN2 is suggested to clarify that the last meeting agreement about UE-side applicable functionality reporting is essentially about UE-side functionality “applicability-related information” reporting, which could mean the following according to the TR*

*a. Condition/Information (e.g., scenarios, locations, configuration, deployment) under which a functionality is applicable*

*b. whether functionality(es) are (non)applicable under the current condition (e.g., scenarios, locations, configuration, deployments)*

*Proposal 3 For the “NW-decision, NW-initiated” LCM scenario for UE-sided model, RAN2 considers the following three sub-scenarios with respect to the determination of applicable functionality, exchange of applicability-related information and UE/NW-side additional condition.*

*a. Sub-Scenario #1: UE reports conditions under which a functionality is applicable; UE may report UE-side additional condition; gNB determines the applicable functionality according to the conditions reported from UE.*

*b. Sub-Scenario #2: UE may receive NW-side additional condition; UE determines the applicable functionality; UE reports if a functionality is applicable.*

*c. Sub-Scenario #3: UE reports conditions under which a functionality is applicable; UE reports if a functionality is determined applicable from UE point of view; gNB determines the applicable functionality according to the conditions reported from UE and among those determined to be appliable from UE point of view.*

=> Noted

[R2-2404275](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404275.zip) On LCM for UE-sided model for Beam Management use case Qualcomm Incorporated discussion Rel-19

*Proposal 2: UE determines the applicable functionalities, using*

*- Model availability information for supported/configured functionalities,*

*- UE-side additional condition information for supported/configured functionalities, and*

*- Network side additional condition information for supported/configured functionalities.*

=> Noted

[R2-2404691](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404691.zip) Discussion on LCM for UE-sided model for Beam Management use case CATT discussion Rel-19 NR\_AIML\_air-Core

*Proposal 3: What is applicable functionality and how the UE determines which functionality is applicable or not (if it is needed) are up to RAN1.*

*Proposal 4: RAN2 assumes the UAI signaling is used for applicable functionality reporting no matter whether the proactive reporting or reactive reporting is used.*

=> Noted

Discussions

- Xiaomi think it is up to the UE to decide applicability

- LG thinks it is not clear what is UE side condition. If it is related to configuration it can be specified in our spec.

-

##### ***Inference:***

[R2-2405025](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405025.zip) Discussion on LCM for UE-sided model for BM CMCC discussion Rel-19 NR\_AIML\_air-Core

Proposal 9: For the configuration of Set A and Set B for UE-sided model inference, the legacy CSI-MeasConfig including CSI-ReportConfig can be enhanced based on RAN1 input.

[R2-2404691](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404691.zip) Discussion on LCM for UE-sided model for Beam Management use case CATT discussion Rel-19 NR\_AIML\_air-Core

Proposal 10: For beam management use case, RAN2 postpones the discussion for UE-sided model inference until more progress made in RAN1.

##### ***Monitoring:***

[R2-2405266](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405266.zip) LCM for UE-side models for beam management Ericsson discussion Rel-19 NR\_AIML\_air-Core

Proposal 10 RAN2 waits for RAN1 progress related to performance monitoring reporting of UE-side functionality.

[R2-2404185](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404185.zip) Beam management UE-sided model LCM signaling Intel Corporation discussion Rel-19 NR\_AIML\_air-Core

Proposal 9: During performance monitoring, the UE reuses CSI framework to report either ground truth label of Set A of beams or inference intermediate KPIs calculated by UE to network, together with the associated ID. It is up to RAN1 whether to report the measured RSRP of Set A of beams or other inference intermediate KPIs.

[R2-2404151](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404151.zip) LCM for UE-sided model for Beam Management use case OPPO discussion Rel-19 NR\_AIML\_air-Core

[R2-2404185](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404185.zip) Beam management UE-sided model LCM signaling Intel Corporation discussion Rel-19 NR\_AIML\_air-Core

[R2-2404275](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404275.zip) On LCM for UE-sided model for Beam Management use case Qualcomm Incorporated discussion Rel-19

[R2-2404341](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404341.zip) Discussion on the LCM for UE-sided model for Beam Management Fujitsu discussion Rel-19 NR\_AIML\_air-Core

[R2-2404370](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404370.zip) LCM for UE-sided model for Beam Management use case TCL discussion Rel-19

[R2-2404390](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404390.zip) Discussion on LCM for UE-sided model for Beam Management vivo discussion Rel-18 NR\_AIML\_air-Core

[R2-2404503](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404503.zip) LCM for UE-sided model for Beam Management use case Interdigital Inc. discussion Rel-19 NR\_AIML\_air-Core

[R2-2404599](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404599.zip) Discussion on LCM for UE-sided model for BM Xiaomi discussion

[R2-2404637](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404637.zip) LCM procedure of UE-sided model for AI/ML based beam management Apple discussion Rel-19 NR\_AIML\_air-Core

[R2-2404691](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404691.zip) Discussion on LCM for UE-sided model for Beam Management use case CATT discussion Rel-19 NR\_AIML\_air-Core

[R2-2404816](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404816.zip) LCM for AIML based beam management with UE-sided model Lenovo discussion Rel-19

[R2-2404817](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404817.zip) Discussion on applicability-related information and additional condition Lenovo discussion Rel-19

[R2-2404902](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404902.zip) UE side model functionality definition Sony discussion Rel-19 NR\_AIML\_air-Core

[R2-2404933](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404933.zip) Discussion on LCM for UE-sided model Spreadtrum Communications discussion Rel-19

[R2-2404941](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404941.zip) Functionality based LCM related to UE-side models for BM Nokia discussion Rel-19 NR\_AIML\_air-Core

[R2-2404957](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404957.zip) Functionality identification and applicability related report LG Electronics discussion Rel-19 NR\_AIML\_air-Core

[R2-2404958](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404958.zip) Functionality management for UE-sided model LG Electronics discussion Rel-19 NR\_AIML\_air-Core

[R2-2405025](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405025.zip) Discussion on LCM for UE-sided model for BM CMCC discussion Rel-19 NR\_AIML\_air-Core

[R2-2405073](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405073.zip) Discussion on LCM for UE-sided model NEC discussion Rel-19 NR\_AIML\_air-Core

[R2-2405180](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405180.zip) Functionality-based LCM for UE sided model Samsung discussion Rel-19 NR\_AIML\_air-Core

[R2-2405184](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405184.zip) Considerations on LCM for UE side Model for AIML Based BM ZTE Corporation discussion Rel-19 NR\_AIML\_air-Core

[R2-2405246](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405246.zip) LCM Framework for UE-sided model SHARP Corporation discussion

[R2-2405266](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405266.zip) LCM for UE-side models for beam management Ericsson discussion Rel-19 NR\_AIML\_air-Core

[R2-2405274](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405274.zip) Discussion on LCM for UE-Side Models Futurewei Technologies discussion Rel-19

[R2-2405337](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405337.zip) Discussion on functionality based LCM for UE-sided model for BM Huawei, HiSilicon discussion NR\_AIML\_air-Core

[R2-2405536](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405536.zip) Considerations for moving forward with Functionality-based LCM Kyocera discussion [R2-2403574](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403574.zip)

[R2-2405665](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405665.zip) Discussion on applicable functionality NTT DOCOMO, INC. discussion Rel-19

#### 8.1.2.3 LCM for Positioning use case

Contributions should focus on UE-sided model, but can discuss NW-sided model and should focus on 1st priority positioning use cases

##### ***Network side model:***

[R2-2404942](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404942.zip) Functionality based LCM for Positioning Nokia discussion Rel-19 NR\_AIML\_air-Core

Proposal 9: RAN2 to await RAN1 progress that indicates a need for specification work on AI/ML positioning Case 3a and Case 3b.

[R2-2404504](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404504.zip) LCM for Positioning use case Interdigital Inc. discussion Rel-19 NR\_AIML\_air-Core

Proposal 1: For the LCM of positioning Case 3a, no specification enhancements are needed for LPP.

Proposal 2: For the LCM of positioning Case 3a, no specification enhancements are needed for RRC.

Proposal 3: For the LCM of positioning Case 3b, no specification enhancements are needed for LPP.

Proposal 4: For the LCM of positioning Case 3b, no specification enhancements are needed for RRC.

[R2-2404616](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404616.zip) Discussion on LCM for positioning use case ZTE Corporation discussion Rel-19 NR\_AIML\_air-Core

Proposal 8: For AI/ML positioning use case 3a and 3b, RAN2 assumes the following approaches can be used for functionality-LCM:

* + - LMF activates/deactivates the functionality
    - gNB activates/deactivates the functionality

Proposal 9: For AI/ML positioning use case 3a, RAN2 assumes that LMF can allow gNB to activate/deactivate the AI model of the functionality for model-LCM.

Proposal 10: For use case 3a, RAN2 assumes that gNB should to know the PRU side additional condition to determine a AI model. FFS on how gNB get such information.

Proposal 11: Send LS to RAN3 about RAN2’s agreement on use case 3a and use case 3b.

##### ***UE side model (Capability/Functionality Identification):***

[R2-2404152](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404152.zip) LCM for Positioning use case OPPO discussion Rel-19 NR\_AIML\_air-Core

Proposal 1: For AI/ML based positioning of Case 1 and Case 2a, RAN2 assumes functionality ID is used by UE to indicate UE-sided applicable functionality. The reported functionality ID refers to a UE-sided supported sub-use case.

[R2-2405070](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405070.zip) LCM for positioning use case Qualcomm Incorporated discussion

Proposal 9: The LPP Capability Transfer procedures (RequestCapabilities/ProvideCapabilities messages) are used to dynamically indicate supported AI/ML positioning capabilities.

Proposal 5: For AI/ML functionality identification of UE-side models, if needed, existing LPP Capability Transfer procedures (RequestCapabilities/ProvideCapabilities messages) are used to indicate to the network which AI/ML functions for positioning are supported by a UE.

##### ***UE side model (Additional conditions/applicability):***

[R2-2404186](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404186.zip) Positioning use case LCM signaling Intel Corporation discussion Rel-19 NR\_AIML\_air-Core

Proposal 3: Associated ID representing NW-side additional conditions is configured/reported together with training data collection, inference configuration, inference result reporting (if needed) and performance metrics reporting over LPP signaling.

Proposal 4: Enhance LPP signaling to report UE-side additional conditions in UAI-like proactive/reactive approach.

[R2-2404616](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404616.zip) Discussion on LCM for positioning use case ZTE Corporation discussion Rel-19 NR\_AIML\_air-Core

Observation 2: For AI/ML positioning, the NW additional conditions (e.g., TRP location, TRP synchronization error, TRP number, PRS configuration) can already be indicated to the UE in current LPP spec.

Observation 3: Since NW side additional condition is already provided to UE, it is not necessary and not efficient to let UE report UE additional condition to LMF, then LMF decides the AI model and feedback to UE.

Proposal 2: RAN2 do not specify the mapping between UE/NW additional conditions and AI models

[R2-2405262](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405262.zip) LCM for positioning use case Ericsson discussion Rel-18

Proposal 5 RAN2 to support UE to provide AI/ML model applicability/validity/availability conditions to LMF via assistance data message in LPP.

##### ***UE side model (Inference):***

[R2-2404942](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404942.zip) Functionality based LCM for Positioning Nokia discussion Rel-19 NR\_AIML\_air-Core

Proposal 4: For Case 1, inference operation the inference result is a position estimate similar to the output for a legacy UE-based positioning and hence we can re-use LPP RequestLocationInformation/ProvideLocationInformation messages. It is FFS whether any extensions to these messages are necessary to support AI/ML inference operation for Case 1.

[R2-2405070](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405070.zip) LCM for positioning use case Qualcomm Incorporated discussion

Proposal 6: Existing LPP procedures related to Location Information Transfer (RequestLocationInformation/ ProvideLocationInformation messages) are used for providing the results of the UE sided model inference operation.

##### ***UE side model (Monitoring):***

[R2-2404692](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404692.zip) Discussion on LCM for Positioning use case CATT discussion Rel-19 NR\_AIML\_air-Core

Proposal 5: For Pos case 1, UE or LMF could perform performance monitoring. Detailed specification impact could be discussed after down selection of the monitoring sub-options by RAN1.

[R2-2404391](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404391.zip) Discussion on functionality LCM for AI/ML enhanced positioning vivo discussion Rel-18 NR\_AIML\_air-Core

Proposal 3 To support monitoring metric calculation at target UE, UE obtains ground truth label, position calculation assistance data, PRU measurement or PRU location from LMF via LPP Request/Provide Assistance Data.

Proposal 4 To support monitoring metric calculation at LMF, LMF obtains model inference output from UE via LPP Request/Provide Location Information.

Proposal 5 To help UE with model-level LCM, LMF may provide performance metrics or functionality management decision via LPP Request/Provide Assistance Data.

[R2-2404186](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404186.zip) Positioning use case LCM signaling Intel Corporation discussion Rel-19 NR\_AIML\_air-Core

Proposal 7: Existing LPP signalling can be used to transfer measurement information and assistance data for UE-side ground truth label calculation. LPP signalling is enhanced to support sending ground truth label from LMF to UE during monitoring at least for Option A-1. FFS whether to reuse existing Assistance Data Transfer/Delivery procedure or new procedure.

Proposal 8: LPP signaling is enhanced to support sending inference results (e.g. predicted measurement, predicted UE location coordinates, etc) from UE to LMF during monitoring in Option B-1 and Option B-2. FFS whether to use Location Information Transfer/Delivery procedure or a new procedure.

[R2-2404152](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404152.zip) LCM for Positioning use case OPPO discussion Rel-19 NR\_AIML\_air-Core

[R2-2404186](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404186.zip) Positioning use case LCM signaling Intel Corporation discussion Rel-19 NR\_AIML\_air-Core

[R2-2404219](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404219.zip) LCM for NW-sided model for Beam Management NEC discussion

[R2-2404230](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404230.zip) Lifecycle management for positioning use-cases Fraunhofer IIS, Fraunhofer HHI discussion

[R2-2404342](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404342.zip) Discussion on the LCM of Positioning Use Case Fujitsu discussion Rel-19 NR\_AIML\_air-Core

[R2-2404391](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404391.zip) Discussion on functionality LCM for AI/ML enhanced positioning vivo discussion Rel-18 NR\_AIML\_air-Core

[R2-2404504](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404504.zip) LCM for Positioning use case Interdigital Inc. discussion Rel-19 NR\_AIML\_air-Core

[R2-2404616](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404616.zip) Discussion on LCM for positioning use case ZTE Corporation discussion Rel-19 NR\_AIML\_air-Core

[R2-2404638](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404638.zip) LCM procedure of AI/ML based positioning Apple discussion Rel-19 NR\_AIML\_air-Core

[R2-2404692](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404692.zip) Discussion on LCM for Positioning use case CATT discussion Rel-19 NR\_AIML\_air-Core

[R2-2404699](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404699.zip) Discussion on LCM for Positioning use case Samsung discussion Rel-19 NR\_AIML\_air-Core Late

[R2-2404818](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404818.zip) LCM for AIML based positioning with UE-sided model Lenovo discussion Rel-19

[R2-2404888](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404888.zip) Discussion on LCM for positioning Baicells discussion

[R2-2404942](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404942.zip) Functionality based LCM for Positioning Nokia discussion Rel-19 NR\_AIML\_air-Core

[R2-2405038](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405038.zip) Discussion on LCM for positioning CMCC discussion Rel-19 NR\_AIML\_air-Core

[R2-2405070](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405070.zip) LCM for positioning use case Qualcomm Incorporated discussion

[R2-2405098](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405098.zip) Discussion on LCM for AI positioning Xiaomi discussion

[R2-2405262](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405262.zip) LCM for positioning use case Ericsson discussion Rel-18

[R2-2405338](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405338.zip) Discussion on LCM for Positioning use case Huawei, HiSilicon discussion NR\_AIML\_air-Core

[R2-2405547](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405547.zip) Discussion on Functionality-based LCM for Positioning Use Case CEWiT discussion Rel-19 NR\_AIML\_air-Core

### 8.1.3 NW side data collection

Contributions should focus on the mechanisms and principles identified for data collection for network side model training during rel-18

##### ***gNB centric collection:***

[R2-2404343](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404343.zip) Discussion on NW side data collection Fujitsu discussion Rel-19 NR\_AIML\_air-Core

*Proposal 1: For gNB-centric data collection for beam management, RAN2 enhances the existing L3 measurement and reporting procedures as baseline and consider the inputs from RAN1.*

=> Noted

[R2-2404819](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404819.zip) Discussion on training data collection for NW-sided model Lenovo discussion Rel-19

*Proposal 3* *RAN2 supports the logging of L1 measurement results at UE, and UE reports the logged multiple instances of L1 measurement result to gNB via RRC message as configured by gNB.*

=> Noted

*Discussion*

- Qualcomm indicates that RAN1 is discussing to extend the framework for training so we should wait. Vivo agrees.

- Apple thinks that from RAN2 perspective we can go with enhanced MDT. Apple and ZTE thinks that the gNB centric and OAM centric solution can be the same. CMCC, Huawei, also agrees that MDT can considered.

- Ericsson indicates that L1 is mainly for inference but if it later agreed for training we can revisit. And the logging is optional so the proposal from Lenovo makes sense.

- Oppo think that from RAN2 we can still make some assumptions.

- Xiaomi also thinks we should support logging but it should be optional. Intel agrees as it will increase power consumption. If the UE doesn’t support logging for L3 reporting then L1 reporting can be used, so it is not precluded from RAN1.

- NEC agrees with proposal 1 and with apple and ZTE

- Samsung thinks that we can go with enhanced MDT.

- Ericsson explains that it is an optional feature and today from L1 reporting this is not possible.

- Nokia doesn’t thinks that enhancement of MDT is not linked to this discussions.

- MEdiatek is concerned with saying single RRC message as it depends on the size. Qualcomm has the same concern.

##### ***OAM centric collection:***

[R2-2404505](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404505.zip) Data Collection for Network-Sided Model Training Interdigital Inc. discussion Rel-19 NR\_AIML\_air-Core

*Proposal 2: Immediate MDT is the baseline framework for OAM-centric data collection for the training of a network-sided model.*

*Proposal 3: Enhance the immediate MDT framework to support measurement logging and on-demand reporting.*

*Proposal 4: Immediate MDT measurement logging is an optional feature (i.e., based on UE capability).*

=> Noted

[R2-2404693](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404693.zip) Consideration on NW side data collection CATT discussion Rel-19 NR\_AIML\_air-Core

*Proposal 1: Enhance logged MDT in RRC\_CONNECTED state for training data collection framework of BM use case.*

*Proposal 2: As an enhancement based on the logged MDT framework, NW could notify the UE about termination node for training data collection.*

*Proposal 3: Signaling based MDT and management based MDT are both applicable for the data collection of AI/ML based model training, regardless of the final decision made by RAN2 to enhance logged MDT or immediate MDT.*

=> Noted

[R2-2404148](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404148.zip) Data Collection for Network Side Model Training OPPO discussion Rel-19 NR\_AIML\_air-Core

*Proposal 2: Introduce a new MDT framework for data collection for NW-sided model training, which fulfills the following requirements:*

*- Multiple samples can be reported within one report, i.e. support UE data logging;*

*- Have the flexibility to collect data from any RRC states;*

*- The UE can be configured by the gNB to report the logged data periodically, or event-driven, or on gNB request;*

*- Extendable for future use cases.*

*Discussions*

- InterDigital, Qualcomm, Samsung, Intel, Ericsson thinks that immediate MDT make since we agreed to support logging for the RRC messages. Intel agrees and wouldn’t want to have a new framework. Ericsson also indicates that logged MTD doesn’t work and there are architectural problems.

- Mediatek wonders if RAN1 should be made aware. ZTE is concerned with immediate MDT and wants to add this should not impact RRM measruements for mobility. Interdigital explains that we have mechanism and tools to avoid impact.

*Enhance the immediate MDT framework support measurement logging (based on agreement 1), and periodical, event-based and based on network request. Logging feature is optional (similar to agreement 1).*

- Huawei thinks that we should start with periodical reporting only. Apple explains that with MDT framework we can do this so we shouldn’t put any other restrictions.

- Mediatek thinks that if we want to log things in the UE we shouldn’t do immediate MDT. InterDigital explains that the intention is to log in the UE and send the information.

- Nokia thinks that we should assume that we use the existing CSI framework and then provide the same information in the RRC message.

- Nokia doesn’t think this loging needs to be part of the immediate MDT. The gNB can collect the data and report it.

- Xiaomi thinks that we should use the same framework for both gNB and OAM.

**Agreements for beam management**

1. For gNB centric and OAM centric (for RRC signaling between UE and gNB), reporting multiple instances of logged L1 measurement result from UE to gNB via a RRC message as configured by gNB is an optional feature. FFS how to handle case when single RRC message is not sufficient. FFS if there will be any further enhancement needed pending RAN1 agreement.

2. Immediate MDT is the baseline framework for OAM-centric data collection for the training of a network-sided model

3. Enhance the immediate MDT framework to support periodical reporting. FFS whether and what event-based reporting is supported and FFS on network request reporting

##### ***Data collection for positioning:***

[R2-2404639](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404639.zip) Further discussion on NW-sided data collection Apple discussion Rel-19 NR\_AIML\_air-Core

Proposal 8: For NW-sided model of case 3b of AI/ML based positioning, extend NPPRa to report dataset from gNB to LMF for model training.

Proposal 9: For NW-sided model of case 3a of AI/ML based positioning, it doesn’t need to enhance data collection because there is no dataset transfer between different entities.

[R2-2405339](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405339.zip) Discussion on NW-sided data collection for training Huawei, HiSilicon discussion NR\_AIML\_air-Core

Proposal 7: LPP protocol can be reused for case 3b for training data collection in the positioning case.

Proposal 8: For case 3a in the positioning case, it is proposed to re-use the conclusion of training data collection for the BM case as much as possible.

[R2-2404148](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404148.zip) Data Collection for Network Side Model Training OPPO discussion Rel-19 NR\_AIML\_air-Core

[R2-2404187](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404187.zip) Enhancements for NW-side data collection Intel Corporation discussion Rel-19 NR\_AIML\_air-Core

[R2-2404276](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404276.zip) On Network Side Data Collection Qualcomm Incorporated discussion Rel-19

[R2-2404317](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404317.zip) AIML data collection for NW-side model NEC discussion Rel-19 NR\_AIML\_air-Core

[R2-2404343](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404343.zip) Discussion on NW side data collection Fujitsu discussion Rel-19 NR\_AIML\_air-Core

[R2-2404371](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404371.zip) Discussion on NW side data collection TCL discussion Rel-19

[R2-2404392](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404392.zip) Discussion on NW side data collection framework vivo discussion Rel-18 NR\_AIML\_air-Core

[R2-2404477](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404477.zip) Data Collection for Network Side Model Training MediaTek Inc. discussion [R2-2402363](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402363.zip)

[R2-2404505](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404505.zip) Data Collection for Network-Sided Model Training Interdigital Inc. discussion Rel-19 NR\_AIML\_air-Core

[R2-2404600](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404600.zip) Discussion on NW side data collection Xiaomi discussion

[R2-2404639](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404639.zip) Further discussion on NW-sided data collection Apple discussion Rel-19 NR\_AIML\_air-Core

[R2-2404693](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404693.zip) Consideration on NW side data collection CATT discussion Rel-19 NR\_AIML\_air-Core

[R2-2404819](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404819.zip) Discussion on training data collection for NW-sided model Lenovo discussion Rel-19

[R2-2404934](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404934.zip) Discussion on NW side data collection Spreadtrum Communications discussion Rel-19

[R2-2404943](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404943.zip) Data Collection for Training of NW-side models Nokia discussion Rel-19 NR\_AIML\_air-Core

[R2-2404959](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404959.zip) NW side data collection LG Electronics discussion Rel-19 NR\_AIML\_air-Core

[R2-2405026](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405026.zip) Discussion on NW side data collection CMCC discussion Rel-19 NR\_AIML\_air-Core

[R2-2405186](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405186.zip) Consideration on NW side Data Collection ZTE Corporation discussion Rel-19 NR\_AIML\_air-Core

[R2-2405200](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405200.zip) Discussion on NW-side data collection Samsung discussion

[R2-2405339](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405339.zip) Discussion on NW-sided data collection for training Huawei, HiSilicon discussion NR\_AIML\_air-Core

[R2-2405548](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405548.zip) Discussion on NW Side Data Collection CEWiT discussion Rel-19 NR\_AIML\_air-Core

[R2-2405667](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405667.zip) NW-side data collection for beam management use cases Ericsson discussion

### 8.1.4 UE side data collection

Study part of WID - Contributions should focus on the mechanisms identified for data collection for UE side model training during rel-18

Including outcome of [POST125bis][020][AI/ML PHY] UE side data collection (Mediatek)

[R2-2404476](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404476.zip) Report of [POST125bis][020][AI/ML PHY] UE side data collection MediaTek Inc. discussion

=> Revised in R2-2405931

[R2-2405931](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405931.zip) Report of [POST125bis][020][AI/ML PHY] UE side data collection MediaTek Inc. discussion

*Proposal 1: [27/29] The term ‘server for data collection for UE-side models training’ is introduced in the definitions/descriptions of solution 1b, 2, and 3, represents that the server inside of MNO's network. The server for data collection for UE-side model training may or may not be used for training of UE-side models. It is called as ’OTT server’ if the server is outside of MNO’s network.*

- Tmobile finds the wording very confusing and we should use trusted vs. untrusted and where the server is is not important.

- Mediate explains that before we had terminology of OTT and we never discussed this.

- Samsung agrees with Tmobile and we should care whether it is trusted or untrusted and we don’t talk about ownership but just security aspects.

- Apple thinks that new wording is more confusing, it is trusted by network vendors or operators. Samsung explains that you can have trusted WiFi and that means that there needs to be secure tunnel.

- Samsung thinks that even the server is outside, it can have a secure tunnel and it is the same as if the UE is inside the MNO.

- Verizon thinks that if we say inside we mean that it is a trusted one and it doesn’t matter where it is physically.

- Huawei asks if we can assume that if the server is inside the MNO it means it is owned by the MNO.

- Oppo thinks that we are talking about ownership. If it is owned by the operator it can be inside or outside. The server can also be owned by a third party.

- Verzion thinks that we should just keep inside/outside and inside always means trusted. Futurewei thinks that we should still take into account ownership.

=> Noted

**Agreements**

1 Solution 1a has no specification impact.

Discussion on termination point

- Nokia and Samsung is not clear what first termination point is. Vivo agrees and thinks that we should discuss all the nodes involved in the process. Oppo thinks we need an anchor point, like for OAM we have the TCE.

- Samsung thinks that define the entity that communicates with the server? Huawei thinks that the most important point is which is the final MNO point.

- Ericsson asks if we need to define what is the termination entity as these entities need to communicated.

* [AT126][020][AI/ML PHY] UE side data collections (Mediatek)

Intended outcome: Agreable table for UE side data collection and clarification of visibility, levels of visibility, and standardized vs. non-standarize

Deadline: 05-24-24

R2-2406000 Report of [AT126][020][AI/ML PHY] UE side data collections Mediatek Inc. discussion Rel-19 NR\_AIML\_air-Core

**Table 1 Characteristics of different options for training data collection for UE-side models**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Aspects | 1a) OTT (3GPP Transparent) | 1b) The server for training data collection for UE-side models (3GPP non-transparent) | 2. Transfer via Core Network | 3. Transfer via OAM |
| **Inside/outside MNO’s network (FFS)** | Outside | FFS: Inside or Outside | Inside  FFS: Outside | Inside  FFS: Outside |
| **FFS whether we talk about Trusted/untrusted**  **Ownership** |  |  |  |  |
| **First termination entity** | OTT server | The server for data collection for UE-side model training | Inside the CN | gNB if CP tunnel  OAM |
| **UP/CP tunnel** | UP tunnel (Note: data collection may be charged as normal traffic.) | UP tunnel (Note: data collection may be charged as normal traffic.) | CP tunnel (provided the data volume remains within the NAS signalling capacity)  FFS: UP tunnel | CP tunnel (provided the data volume remains within the RRC signalling capacity)  FFS: UP tunnel |
| **Protocol layer for data transfer** | Application layer | Application layer | NAS layer for CP tunnel  FFS: the protocol layer for UP tunnel | RRC layer for CP tunnel  FFS: the protocol layer for UP tunnel UP tunnel |
| **Controllability of MNO on data transfer** | No specific controllability | Has controllability  FFS: level of controllability | Full controllability (Note 1) | Full controllability (Note 1) |
| **Control granularity by NW** | NA, the OTT server can directly request data from the UE. | Example: per PDU sessions based on SLA | NAS procedure | RRC procedure |
| **Visibility of data content in MNO** | No visibility | FFS  No visibility, partial visibility, Full visibility | **Full visibility** **(Note 2)**  Partial Visibility? | Full visibility (Note 2) |
| **Data format** | Out of 3GPP scope | FFS | **Standardized**  FFS: non-standardized ? | Standardized  FFS: non-standardized |
| **Involved WGs** | No, out of 3GPP scope | SA2, RAN2 | SA2, RAN2 | SA5, SA2, RAN2 |
| * Note 1: Full controllability: The MNO has the capability to manage data transfer to the server for UE-side data collection. This includes initiating, terminating, and fully managing the volume of data. (Subject to refinement and modification) * Note 2: Visibility of data content signifies the capability of the MNO to, at least, be aware of, access, and comprehend the data during transfer. (Subject to refinement and modification, the scope does not exclude additional requisites, such as the ability to modify the collected data.) | | | | |

[R2-2406000](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2406000.zip) Report of [AT126][020][AI/ML PHY] UE side data collections

- Qualcomm asks what does the FFS on 2,4 mean as we can’t resolve it in RAN2. Mediatek explains that it is not clear.

- Ericsson thinks that these bullets are a fact and we should keep all of them.

- Tmobile explains that for partial visibility we can have parts of the data standardized and other

**Agreements**

For the options identified to realize the different levels of data content visibility

1. Full visibility for standardized data content.

2. Partial visibility for partially standardized data content.

3. No standardized visibility

NOTE in the TR that RAN2 discussed that visibility can be achieved as per SLA only but is outside of the scope of our discussions.

Discussions

- Qualcomm thinks that Option 1b) can have full visibility and partial visibility. Futurewei thinks that full visibility is not possible with option 1b). Oppo thinks that for option 1b the visibility is only via SLA. The Visibility doesn’t come for free. Qualcomm thinks that we have standardized data for 25.532. Oppo thinks that the referenced spec 25.532 is about API and the operator needs to cooperate to get it otherwise it is not for free.

- Ericsson thinks that Visibility from RAN2 means that the requirement

**Agreements**

1. **Capture table below in TR (Rapporteur will clean up and refine and review over email)**
2. **Capture the privacy concerns from different stakeholders as informative annexes in the TR. All the options (1a, 1b, 2, 3) should respect those privacy concerns. Details are up to TR rapporteur.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Aspects** | **1a) OTT (3GPP Transparent)** | **1b) The server for training data collection for UE-side models (3GPP non-transparent)** | **2. Transfer via Core Network** | **3. Transfer via OAM** |
| **First termination entity** | OTT server | The server for data collection for UE-side model training | Inside the CN (e.g., LMF) | Inside OAM domain |
| **AI/ML-specific Data Transfer Path** | UE to OTT server via either 3GPP or non-3GPP network | UE-> CN ->Server for data collection for UE-side model training/OTT server  (Note 4) | UE-> CN -> Server for data collection for UE-side model training/OTT server  (Note 4) | UE->gNB->OAM-> Server for data collection for UE-side model training/OTT server |
| **UP/CP tunnel** | UP tunnel | UP tunnel | CP tunnel (provided the data volume remains within the NAS signalling capacity)  FFS: UP tunnel | CP tunnel (provided the data volume remains within the RRC signalling capacity)  FFS: UP tunnel |
| **Protocol layer for data transfer** | Application layer | Application layer | NAS layer for CP tunnel  FFS: the protocol layer for UP tunnel | RRC layer for CP tunnel  FFS: the protocol layer for UP tunnel |
| **Controllability of MNO on data transfer** | No AI/ML specific controllability | Has controllability  FFS: level of controllability | Full controllability (Note 1) | Full controllability (Note 1) |
| **Control granularity by NW** | NA, the OTT server can directly request data from the UE. | Example: per PDU sessions | NAS procedure, FFS impact to other layers | RRC procedure |
| **Possible Options for Visibility of data content in MNO and Data format (Note 2, Note 3)** | No standardized visibility | FFS | Opt A) Full visibility for standardized data content.  FFS Opt B) Partial visibility for partially standardized data content.  FFS Opt C) No standardized visibility  FFS: meaning of ‘partial/partially’  SAME for OPTION 3 | Full visibility for standardized data content.  Partial visibility for partially standardized data content  No standardized visibility  FFS: meaning of ‘partial/partially’ and how to achieve different levels of visibility |
| **Involved WGs** | NA | SA2, SA3, RAN2 | SA2, SA3, RAN3 RAN2, CT1 and CT3 | RAN2, RAN3, SA3, SA5, FFS SA2 |
| * Note 1: Full controllability: The MNO has the capability to manage data transfer to the server for UE-side data collection. This includes initiating, terminating, and fully managing data transfer. (Subject to refinement and modification) * Note 2: Visibility of data content signifies the capability of the MNO to, at least, be aware of, access, and comprehend the data during transfer. (Subject to refinement and modification, the scope does not exclude additional requisites, such as the ability to modify the collected data.) * Note 3: For Solution 1b, 2/3, the following options are identified to realize the different levels of data content visibility if different levels of data content visibility to MNO are considered. FFS on the data content visibility via SLA.   + Full visibility for standardized data content.   + Partial visibility for partially standardized data content.   + No visibility for non-standardized data content. * Note 4: The potential involvement of NF or other higher layers entities/functionalities should be discussed in other WGs. | | | | |

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* [POST126][034][AIML PHY] TP for data collection (Ericsson)

Intended outcome: Prepare and review TP capturing table in minutes and agreements on data collection

Deadline: long

[R2-2405634](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405634.zip) Discussion on UE side data collection China Unicom discussion NR\_AIML\_air-Core

Proposal 1: For solution 1b), 2 and 3, the server for training data collection for UE-side models should be inside MNO’s network.

Proposal 2: Solution 1b) is considered redundant with OAM-based and CN-based solutions.

Proponents of partial control solutions provide examples such as: the MNO cannot dictate when the UE should transmit data to the server; the data collection entity (or Network Function, NF) might choose not to reveal the actual data to the CN; and for UP-based data transfers, the MNO's controllability is limited, such as in QoS management, or the MNO may only be informed of data collection activities without the ability to control the data itself.

Proposal 3: Regarding solution 1b), the MNO has full controllability over the UE-side training data collection.

Proposal 4: The term “full controllability” means the MNO has the capability to manage data transfer to and from the server for training data collection for UE-side models. This includes initiating, terminating, modifying and fully managing the volume of data.

[R2-2405271](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405271.zip) Discussion on Data Collection for UE-side Model Training Futurewei Technologies discussion Rel-19

Proposal 8: Start the discussion on data transfer controllability for UE-side data collection based on the initial assumptions on the following dimensions:

• The MNO's ability to manage (e.g., allow/disallow, initiate/terminate, prioritize/de-prioritize, etc.) the data transfer to and from the server for UE-side data collection.

• The specific entity within the MNO to control the data transfer to and from the server for UE-side data collection.

• The protocols and methods utilized by the MNO to control the data transfer to and from the server for UE-side data collection.

Note these dimensions do not exclude any other aspects and are subject to future revision.

Proposal 9: Define the following terminologies related to the level of controllability.

• Full Control: The MNO has the capability to manage data transfer to the server for UE-side data collection. This may include initiating, terminating, and fully managing the volume of data. For example, the UE should start the data transfer only if that is allowed by the MNO/NW.

• Partial Control: The MNO has some degree of control over the data transfer but may be limited by certain factors such as agreements with third parties. For example, the UE can start the data transfer without involvement of MNO/NW as long as the tunnel is available.

• No Control: The MNO has no capability to influence or manage the data transfer.

Note the functions can be controlled are not exclusive and may be extended or revised.

Proposal 10: As a starting point, RAN2 assumes that 'visibility' of data content refers to the purpose of the data is collected for (i.e., the use case) and the type of data (e.g., RSRP measurement). The MNO should not have the right to interpret what the data is (i.e., be able to interpret and process the data, except anonymize it).

[R2-2404149](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404149.zip) Data Collection for UE Side Model Training OPPO discussion Rel-19 NR\_AIML\_air-Core

[R2-2404188](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404188.zip) Discussion on UE-sided training data collection Intel Corporation discussion Rel-19 NR\_AIML\_air-Core

[R2-2404196](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404196.zip) Data collection for UE side model training Xiaomi discussion Rel-19 NR\_AIML\_air-Core

[R2-2404221](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404221.zip) Data Collection for UE side Model training NEC discussion

=> Revised in R2-2405851

R2-2405851 Data Collection for UE side Model training NEC discussion

[R2-2404277](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404277.zip) On UE-side Data Collection Qualcomm Incorporated discussion Rel-19

=> Revised in R2-2405716

R2-2405716 On UE-side Data Collection Qualcomm Incorporated discussion Rel-19

[R2-2404393](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404393.zip) Discussion on UE side data collection vivo discussion Rel-18 NR\_AIML\_air-Core

[R2-2404476](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404476.zip) Report of [POST125bis][020][AI/ML PHY] UE side data collection MediaTek Inc. discussion

=> Revised in R2-2405931

R2-2405931 Report of [POST125bis][020][AI/ML PHY] UE side data collection MediaTek Inc. discussion

[R2-2404506](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404506.zip) Data Collection for UE-Sided Model Training Interdigital Inc. discussion Rel-19 NR\_AIML\_air-Core

[R2-2404640](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404640.zip) Further discussion on UE-sided data collection Apple discussion Rel-19 NR\_AIML\_air-Core

[R2-2404694](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404694.zip) Consideration on UE side data collection CATT discussion Rel-19 NR\_AIML\_air-Core

[R2-2404820](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404820.zip) Other aspects related to training data collection for UE-sided model Lenovo discussion Rel-19

[R2-2404935](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404935.zip) Discussion on UE side data collection Spreadtrum Communications discussion Rel-19

[R2-2404944](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404944.zip) Data Collection for Training of UE-side models Nokia discussion Rel-19 NR\_AIML\_air-Core

[R2-2405027](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405027.zip) Discussion on data collection for UE-sided model training CMCC discussion Rel-19 NR\_AIML\_air-Core

[R2-2405187](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405187.zip) Consideration on UE side Data Collection ZTE Corporation discussion Rel-19 NR\_AIML\_air-Core

[R2-2405271](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405271.zip) Discussion on Data Collection for UE-side Model Training Futurewei Technologies discussion Rel-19

[R2-2405340](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405340.zip) Discussion on UE-sided data collection for training Huawei, HiSilicon discussion NR\_AIML\_air-Core

[R2-2405549](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405549.zip) Discussion on UE Side Data Collection CEWiT discussion Rel-19 NR\_AIML\_air-Core

[R2-2405602](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405602.zip) AI/ML Data Collection Requirements " T-Mobile USA, Verizon, Charter, NTT DOCOMO, Deutsche Telekom, Turkcell, BT, AT&T, Nokia, Telecom Italia, CMCC" discussion Rel-19 NR\_AIML\_air Late

[R2-2405634](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405634.zip) Discussion on UE side data collection China Unicom discussion NR\_AIML\_air-Core

[R2-2405656](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405656.zip) Data collection for UE-side model training Samsung discussion

[R2-2405669](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405669.zip) UE-side Data Collection Ericsson discussion

## 8.2 Ambient IoT

(FS\_Ambient\_IoT\_solutions,leading WG: RAN1; REL-19; SID: [RP-240826](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_103/Docs/RP-240826.zip))

Time budget: 2 TU

Tdoc Limitation: 4 tdocs

NOTE: contributions should focus on technical aspects of topology 1 only in RAN2#126 (or common aspects of topology1/topology2) to progress on some basic required functionality.

### 8.2.1 Organizational

LS, Rapporteur input, including workplan, etc.

[R2-2405615](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405615.zip) TP for TR 38.769 update and terminologies Huawei, CMCC, T-Mobile USA discussion Rel-19 FS\_Ambient\_IoT\_solutions

*Proposal 1: RAN2 to use the following terminologies for discussion in the study phase/TR:*

* A-IoT paging: The function to be used for the initial trigger message to indicate device(s) that need to respond.*

* A-IoT random access procedure*

*Proposal 2: The Text Proposal in section 2 to capture the last meeting agreements is for information.*

* [POST126][021][AIoT] TP (Huawei)

Intended outcome: Capture agreed solutions/options from this meeting [CB]

Deadline: 05-24-24

### 8.2.2 Stage 2 General aspects

Stage 2 overall procedure/message flow for three different cases: inventory, command only, inventory and command, taking into account SA2 and other WGs progress into account

***Definitions of Inventory and Command***

[R2-2404192](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404192.zip) Overall procedures for Inventory and Command use cases Intel Corporation discussion Rel-19 FS\_Ambient\_IoT\_solutions

Proposal 2: To add the following terminology of Inventory and Command in the TR 38.769:

- Inventory: A procedure used by Reader to discover and acquire the identifier of a single or group of AIoT device(s);

- Command: A procedure used by Reader to send an operation request (e.g. Read, Write) to an AIoT device.

[R2-2404231](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404231.zip) Discussion on stage 2 overall procedures for Ambient IoT CATT, CEPRI discussion Rel-19 FS\_Ambient\_IoT\_solutions

Proposal 1: RAN2 to discuss the definition of “inventory” and “command” respectively:

- Inventory: Refers to collect the identities of all or a group of or one of AIoT devices in range of a reader.

- Command: Refers to an instruction sent by an AF to a group of or an AIoT device(s). The following instructions may be supported:

• Read: Reading data from the required AIoT device(s);

• Write: Writing data to the required AIoT device(s);

• Disable/enable: Disable/ enable the required AIoT device(s).

***Cases to support***

[R2-2404569](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404569.zip) Ambient-IoT General Aspects NEC discussion Rel-19 FS\_Ambient\_IoT\_solutions

*Proposal 3: RAN2 assume “Inventory only”, “command only” and “inventory + command” cases can be supported by above procedure consisting Step A (or Modified Step A), Step B and Step C.*

- Vodafone is concerned with security for option inventory + command. Apple thinks that inventory + command is an optimization so let’s start with inventory and command.

=> Noted

***Inventory only Procedure***

[R2-2405041](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405041.zip) General aspects and overall procedure Huawei, HiSilicon, Wiliot Ltd., Orange, LG Uplus, NTT DOCOMO, INC. discussion

*Proposal 1a: As baseline, the “inventory only” case is supported by the procedure (this doesn’t preclude the possibility that some messages can be combined in stage-3):*

* Step A: A-IoT paging;*

* Step B: A-IoT random access, if needed;*

* Step C1: device to reader transmission including the device ID for inventory/identification;*

[R2-2404809](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404809.zip) Considerations on general aspects for Ambient IoT Lenovo discussion Rel-19

***Proposal 1:*** *Procedure for inventory only case, includes Step A and Step B baseline procedure but without Step C baseline procedure, as depicted in the Figure 1.*

[R2-2404628](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404628.zip) Outstanding stage-2 issues of Ambient IoT design Apple discussion Rel-19 FS\_Ambient\_IoT\_solutions

Proposal 2: to amend the agreement on the baseline procedure as follows:

a. Step A: Based on the indication from 5GC (NG-AP message for topology 1, NAS message for topology 2) or its own determination, the reader sends the Initial Trigger Message indicating device(s) that need to respond. The message carries: device id(s), or device group id(s), or no idea (to trigger all the devices in the area); Details FFS

b. Step B: Triggered device(s) performs the random access-like procedure, if needed; Details FFS

c. Step C: The device may perform the data communication (i.e. UL/DL A-IoT MAC PDU(s) exchange) with the reader as needed,: Details FFS

Discussion

- Oppo thinks that step C would depend on the RA procedure and it could be FFS if device ID will be part of the procedure.

- Lenovo would like to clarify that only device ID will be included in the message.

- Mediatek and CATT think that we should have a unified procedure.

=> AIoT paging terminology will be discussed and refined later

***Inventory + Command Procedure***

[R2-2405041](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405041.zip) General aspects and overall procedure Huawei, HiSilicon, Wiliot Ltd., Orange, LG Uplus, NTT DOCOMO, INC. discussion

*Proposal 1b: As baseline, the “inventory and command” case is supported by the procedure (this doesn’t preclude the possibility that some messages can be combined in stage-3):*

*Step A: A-IoT paging;*

*Step B: A-IoT random access, if needed;*

*Step C1: device to reader transmission including the device ID for inventory/identification;*

*Step C2:*

*C2a: reader to device data transmission (e.g. the DL command), and*

*C2b: corresponding device to reader data transmission (e.g. the feedback).*

- Mediatek explains that this should be part of a single procedure. Huawei confirms that we would capture a unified procedure at the end in the TP after this discussion.

- Intel has a different opion as it will be simpler to capture the procedures separaterely.

- Qualcomm ask what does inventory and command mean. The only use case for this is that if there is just DL command then the reader can trigger inventory and then command Samsung explains that the UE does first inventory and then does command.

- Intel explains that there is a case in SA2 where both inventory and command are sent at the same time to the reader.

***Command Procedure***

*(whether to support command in the initial trigger message)*

[R2-2405039](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405039.zip) General considerations on A-IoT CMCC discussion Rel-19 FS\_Ambient\_IoT\_solutions

*Proposal 2: RAN2 assumes the end-to-end protection of Commands and Command Results are addressed by SA3 and SA2 via NAS security.*

*Proposal 3: Command message can be included in A-IoT paging message, and RAN2 supports command only procedure.*

[R2-2404498](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404498.zip) General aspects for Ambient IoT Ericsson discussion Rel-19 FS\_Ambient\_IoT\_solutions

*Proposal 3 RAN2 assumes that command procedure targets only registered devices.*

*Proposal 4 RAN2 to study command only procedure unless SA3 indicates a security concern on command only procedure.*

[R2-2405598](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405598.zip) Discussion on Stage 2 aspects for Ambient IoT NTT DOCOMO, INC. discussion Rel-19

*Proposal 1. Do not support Read and Write command in Initial Trigger Message or leave discussion to check by SA3.*

*Discussion (on supporting R2D only command)*

- Intel thinks that we should include this scenario and add some condition on SA2 conclusion and we shouldn’t link to SA3

- Docomo asks how it would work in the case of multiple devices. Interdigital thinks that there are advantage and whether we support it it depends on SA2/SA3.

- Huawei thinks we need to assume that there will have to be security.

- ZTE doesn’t thinks that we should be able to send a write command to all UEs in agroupd.

**Agreements**

1 As baseline, the “inventory only” case is supported by the procedure:

- Step A: A-IoT paging;

- Step B: Device ID transmission (via Random Access or without using RA). Details are FFS

2 As baseline, the “inventory and command” case is supported by the procedure:

- Step A: A-IoT paging;

- Step B: Device ID transmission (via Random Access or without using RA). Details are FFS

- Step C: reader to device data transmission (e.g. the R2D command), and

- Step D: corresponding device to reader data transmission (e.g. the feedback). FFS whether this is optional, pending other WG discussions.

Clarify in TR that inventory and command doesn’t mean that AIoT paging includes both Inventory and Command in the same message. This doesn’t mean that inventory and command are received by the reader at the same time from upper layer.

3 From RAN2 point of view we will study “Command only” use case.

FFS the options on how to support it :

Initial trigger message from the reader contains the command. Final feasibility depends on SA2 and SA3 work/conclusions.

Use baseline procedure for “inventory and command”(i.e. first triggers inventory procedure and then sends command)

*(signaling of the command and support of group)*

[R2-2404192](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404192.zip) Overall procedures for Inventory and Command use cases Intel Corporation discussion Rel-19 FS\_Ambient\_IoT\_solutions

Proposal 8: To support Command procedure for single device, the message “Command” and “Device Response” shall be specified in Data link layer (e.g. as part of A-IoT MAC). FFS on the relationship between the message defined in RAN2 and SA2.

[R2-2404533](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404533.zip) General Aspects on Ambient IOT InterDigital discussion Rel-19 FS\_Ambient\_IoT\_solutions

Proposal 7: The “command” phase of the procedure consists of the reader transmitting a message containing at least upper layer data, and the device responding with upper layer data or acknowledgement. FFS whether the acknowledgement is an upper layer acknowledgement or AS layer acknowledgement.

[R2-2404983](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404983.zip) Discussion on general aspects for Ambient IoT HONOR discussion Rel-19 FS\_Ambient\_IoT\_solutions

Proposal 2: RAN2 to take the following description of the command use case as baseline for further study

CN sends the command to the Reader.

Reader transmits the command related message to target device(s).

(Optional) Reader receives and transmits the feedback (data for read, FFS UL ack for read/write/disable) to CN.

FFS support of DL command for one/group of/all device(s).

[R2-2405383](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405383.zip) Overall procedures for Ambient IoT Kyocera discussion Rel-19

Proposal 9 RAN2 should aim to define one common procedure for all use cases, the “inventory”, the “read command” and the “write command”.

***Assumptions on device type***

[R2-2405212](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405212.zip) General aspects of Ambient IoT Qualcomm Incorporated discussion Rel-19 FS\_Ambient\_IoT\_solutions

Proposal 1: RAN2 will aim to have common protocol and procedures for different device types (with/without DL/UL amplification and/or UL transmission generation) as much as possible.

[R2-2404628](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404628.zip) Outstanding stage-2 issues of Ambient IoT design Apple discussion Rel-19 FS\_Ambient\_IoT\_solutions

Proposal 1: RAN2 to consider two A-IoT device types (e.g. low-end and high-end) in terms of their baseband/RAN2-related capabilities.

[R2-2404344](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404344.zip) Discussions on General Aspect of Ambient IoT Fujitsu discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2404381](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404381.zip) Discussion on general aspects of AIoT Futurewei discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2404394](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404394.zip) General discussion on ambient IoT vivo discussion Rel-18 FS\_Ambient\_IoT\_solutions

[R2-2404507](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404507.zip) Control and user plane modelling for ambient IoT interface MediaTek Inc. discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2404587](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404587.zip) Stage 2 overall procedure flow OPPO discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2404873](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404873.zip) Considerations on the general aspects of the Ambient IOT Beijing Xiaomi Software Tech discussion Rel-19

[R2-2404876](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404876.zip) Further consideration on general aspects for AIoT ZTE Corporation, Sanechips discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2404929](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404929.zip) Discussion on general aspects of A-IoT Spreadtrum Communications discussion Rel-19

[R2-2405244](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405244.zip) Further on general aspects of AIoT Nokia discussion FS\_Ambient\_IoT\_solutions

[R2-2405291](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405291.zip) Discussion on general aspects of ambient IoT LG Electronics Inc. discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2405305](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405305.zip) Discussion on stage-2 aspects for Ambient IoT China Telecom discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2405465](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405465.zip) General aspects for AIoT Samsung discussion Rel-19 FS\_Ambient\_IoT\_solutions

### 8.2.3 Functionality aspects

Contributions should focus on the functionalities required for A-IoT devices, including security related questions to SA3, need of resource allocation, segmentation/reassembly (pending RAN1 progress), QoS handling, higher layer repetition, BSR, SR, etc.?

**MAC or AIOT Layer Functionality**

*(Logical channels and multiplexing)*

[R2-2405040](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405040.zip) Discussion on protocol stack of A-IoT CMCC discussion Rel-19 FS\_Ambient\_IoT\_solutions

*Proposal 5: Logical channel is not considered for A-IoT.*

*Proposal 6: Multiplexing and LCP function are not supported for A-IoT.*

=> Noted

[R2-2405214](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405214.zip) Views on Functionality Aspects of Ambient IoT Qualcomm Incorporated discussion FS\_Ambient\_IoT\_solutions

*Proposal 4: The concept of logical channels as in NR MAC is also supported for AIoT.*

=> Noted

[R2-2404879](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404879.zip) Ambient-IoT Functionality Aspects NEC discussion Rel-19 FS\_Ambient\_IoT\_solutions

*Proposal 2: RAN2 to define two mac layer channels:*

*− One for data;*

*− Another one for signaling.*

=> Noted

*Discussions on logical channels*

- Fujitsu thinks that the terminology should be there for logical channels for MAC specification perspective. Interdigital thinks that we should exclude supporting multiple logical channel and multiplexing rather than the concept.

- Qualcomm asks how we would differentiate control MAC CE. This is a modeling issue, and there can be a code point to indicate the type of message. Huawei agrees as if we use the concept of logical channel will be confusing.

- Samsung thinks that we need to discuss the need to differentiate data. Lenovo thinks that there is no need for multiple logical channel.

- MEdiatek thinks device complexity is bad. No need for multiple logical channel and no need to differentiate between data and control on channel basis.

- Kyocera asks how to handle the reader in case of multiple devices.

*(SR)*

[R2-2404586](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404586.zip) Discussion on needed functionalities for Ambient IoT communication OPPO discussion Rel-19 FS\_Ambient\_IoT\_solutions

*Proposal 4 SR is not needed for A-IoT communication while focusing on DT and DO-DTT.*

*(BSR)*

[R2-2405466](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405466.zip) Discussions on functionalities required for AIoT Samsung discussion Rel-19 FS\_Ambient\_IoT\_solutions

*Proposal 9: RAN2 is kindly asked to discuss the BSR-like function to facilitate the resource allocation at the reader.*

=> Noted

[R2-2404345](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404345.zip) Discussions on AIoT Functionalities Fujitsu discussion Rel-19 FS\_Ambient\_IoT\_solutions

*Proposal 4: If the buffer size is larger than the TBS, the A-IoT device may piggyback a BSR or SR in the uplink data transmission.*

=> Noted

[R2-2404659](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404659.zip) Disucssion on functional aspects for Ambient IoT Apple discussion Rel-19 FS\_Ambient\_IoT\_solutions

*Proposal 7 BSR in A-IoT air interface to solicit UL grant is not supported for DO-DTT.*

=> Noted

*Discussions on need of BSR-like*

- Vivo thinks BSR is useful. MEdiatek sees some value for Fujitsu’s case where the reader doesn’t know the expected size of the response, but we shouldn’t reproduce the NR SR/BSR concept. Nokia agrees with Mediatek wrt legacy BSR, however there may be some cases where it can be beneficial. Ericsson agrees that we shouldn’t support the full legacy BSR as it is.

- Qualcomm thinks that there is benefits to indicating some message size, but it can be done differently than BSR. Xiaomi thinks that there are two cases 1) signaling and 2) segmentation so key point is whether we support segmation. 1 bit BSR would be enough.

- Intel and CMCC doesn’t think there is BSR-based legacy scheduling is supported. Interdigital and Samsung doesn’t think that we are signaling message size, just status indication.

- Huawei and Ericsson thinks that we can keep it open as maybe one bit may not be sufficient.

- Google thinks padding is needed.

*(Duplication discard and sequence number)*

[R2-2404395](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404395.zip) Discussion on functionality aspects for Ambient IoT vivo discussion Rel-18 FS\_Ambient\_IoT\_solutions

*Proposal 15 Data duplication discard is not supported for AIoT service.*

*Proposal 16 No MAC layer sequence number is needed for service data transmitted in MAC PDU.*

*(Capability Reporting)*

[R2-2404155](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404155.zip) Discussion on functions in protocol stack for ambient IOT Xiaomi discussion Rel-19

Proposal 17: The device capability is reported to reader including static device capability and dynamic device capability.

[R2-2404395](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404395.zip) Discussion on functionality aspects for Ambient IoT vivo discussion Rel-18 FS\_Ambient\_IoT\_solutions

Proposal 6 RAN2 assumes that device type and device radio capability information reporting from device to reader are not necessary.

(Segmentation)

[R2-2404395](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404395.zip) Discussion on functionality aspects for Ambient IoT vivo discussion Rel-18 FS\_Ambient\_IoT\_solutions

Proposal 11 RAN2 should determine whether segmentation is needed based on the following input from RAN 1:

- The maximum sustainable time based on the AIoT device energy storage;

- The required duration for R2D/D2R transmission of single packet (e.g. 1000bit).

Proposal 12 Segmentation, if needed, should be considered as a functionality in MAC layer.

(Repetition)

[R2-2404795](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404795.zip) Functionality aspects for A-IoT Ericsson discussion Rel-19 FS\_Ambient\_IoT\_solutions

*Proposal 11 Study the need for retransmissions and repetition in MAC or in a new AS layer above MAC.*

[R2-2405042](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405042.zip) A-IoT functionalities Huawei, HiSilicon discussion

*Proposal 6: RAN2 will not support AS higher-layer repetition. (This does not preclude R2D message retransmission by reader implementation.)*

Discussion

- Intel and Qualcomm think that legacy repetition shouldn’t be supported. ZTE is concerned that if you are doing segmentation the reader would have to retransmit everything. At least MAC retransmissions should be allowed.

- Qualcomm explains that RAN1 support PHY retransmissions, but we can agree to no “RLC-like” repetition. Huawei would like to clarify no buffer based retransmission is supported. Samsung thinks that a failure may require a retransmission, but R2D upper layer retransmission can be done by implementation.

- Lenovo sees benefits from R2D repetition if the device doesn’t receive it.

- Ericsson would like to ensure we don’t preclude retransmitting the payload.

- ZTE would like to ensure that this doesn’t preclude retransmitting a segment in case of segmentation.

**Agreements on functionality**

1 Multiple “AIoT logical channels” for upper layer data are not supported. FFS if AIoT logical channel concept is used depending on final modeling issue.

2 legacy NR BSR/SR is not needed for A-IoT communication.

3 FFS whether further indication of device message size/status is needed

4 AS-layer (above PHY layer) RLC-like sretransmission/repetition is not supported. This doesn’t preclude the reader and device sending the payload again as new transmission from MAC perspective. FFS how we handle segmentation case (if needed)

**Visibility of inventory/command information at the AS layer**

[R2-2404795](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404795.zip) Functionality aspects for A-IoT Ericsson discussion Rel-19 FS\_Ambient\_IoT\_solutions

Proposal 4 Study whether Reader is aware of the below information:

a. Message and service type (e.g., inventory or command etc)

b. Information on targeted devices (e.g., group ID, device ID and number of devices)

c. Device capabilities (e.g., device type (1, 2a or 2b) and/or whether device supports frequency shift)

d. FFS other information.

**Security and SA3/SA2 LS**

[R2-2404586](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404586.zip) Discussion on needed functionalities for Ambient IoT communication OPPO discussion Rel-19 FS\_Ambient\_IoT\_solutions

Proposal 1 RAN2 to send LS to SA3 asking the above questions.

Proposal 2 In the LS, include a question to SA2 asking whether NAS layer will be introduced for Ambient IoT.

|  |
| --- |
| 1. Would 3GPP system provide security protection for Ambient IoT communication? 2. If yes:    1. What are the corresponding security requirements, e.g. related to ciphering and/or integrity protection?    2. Would security protection be done in higher layer (e.g. NAS layer if agreed by SA2) and/or AS layer, by taking Ambient IoT device’s limited capabilities into account?    3. Would those security requirements and/or solutions be common for all types of Ambient IoT devices or would be different for different device types? |

[R2-2404395](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404395.zip) Discussion on functionality aspects for Ambient IoT vivo discussion Rel-18 FS\_Ambient\_IoT\_solutions

Proposal 1 RAN2 to ask the following Question 1 to SA3 (CC to SA2): Whether there is any concern/further input on following RAN2 assumptions of AIoT AS security, which include:

- RAN2 will continue the study of ambient IoT assuming no support of AS security until SA3 provides further input.

- PDCP layer is not needed. FFS how to handle AS security (if needed pending SA3 discussion).

Proposal 2 RAN2 to ask the following Question 2 to SA3 (CC to SA2): Whether there is any concern/further input on following RAN2 assumption for the “inventory only” procedure:

- For Step C (as illustrated in Figure 1), RAN2 assumes that the “inventory” data transmission from an AIoT device at least includes a device ID, which is sent in the form of upper layer PDU.

- Whether and how to support device ID security protection wait for SA3 input.

Proposal 3 RAN2 to ask the following Question 3 to SA3 (CC to SA2): Whether there is any concern/further input on following RAN2 assumptions for the “inventory and command” procedure, which include:

- For Step C2 and Step C3 (as illustrated in Figure 2), RAN2 assumes that “command” data transmission to/from an AIoT device has the end-to-end protection by upper layer security mechanism.

- Whether and how for the security related steps (e.g., device security capability report, security configuration/activation) are to be supported for the end-to-end protection of “command” data transmission wait for SA3 input.

Proposal 4 RAN2 to ask the following Question 3 to SA3 (CC to SA2&RAN3):

Proposal 10 Question 3: Ask feasibility for each candidate option to include the “command” data in the Initial Trigger Message for support of the “command only” procedure, which include:

- Option 1: with RAN-level device context (e.g., including RN16) at reader side, with CN-level device context (e.g., including security context) at CN side, as illustrated in Figure 3.

- Option 2: No RAN-level device context (e.g., including RN16) at reader side, with CN-level device context (e.g., including security context) at CN side, as illustrated in Figure 4.

- Option 3: No RAN-level device context at reader side, No CN-level device context at CN side, as illustrated in Figure 5.

(Configuration Signalling and validity)

[R2-2404501](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404501.zip) AIoT read and write operations MediaTek Inc. discussion Rel-19 FS\_Ambient\_IoT\_solutions

Proposal 2: Signalling messages between the reader and the device are modelled as read and write operations whose addressing indicates specific functionality. FFS if the addresses are logical locations with specified behaviour or a separate form of data.

(Consideration of Stored Energy)

[R2-2405269](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405269.zip) Considerations for functionality aspects Semtech Neuchatel SA discussion

Proposal 1: RAN2 to study mitigation procedures of when an A-IoT device has insufficient energy storage to complete the transaction (for MO and MT transactions).

[R2-2405233](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405233.zip) On AIoT functionality aspect Nokia discussion FS\_Ambient\_IoT\_solutions

Proposal 9: RAN2 to study energy-level reporting by the AIoT device(s) as assistance information.

[R2-2404193](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404193.zip) Required functions for A-IoT Intel Corporation discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2404232](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404232.zip) Discussion on the Functionality Aspects for Ambient IoT CATT, CEPRI discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2404382](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404382.zip) On not supporting segmentation and reassembly in Layer 2 for AIoT Futurewei discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2404508](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404508.zip) Transfer of upper-layer AIoT information MediaTek Inc. discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2404521](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404521.zip) Considerations on functionality aspects for Ambient IoT Lenovo discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2404534](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404534.zip) Functions for Ambient IOT InterDigital discussion Rel-19 FS\_Ambient\_IoT\_solutions

=> Revised in [R2-2405697](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405697.zip)

[R2-2405697](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405697.zip) Functions for Ambient IOT InterDigital discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2404538](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404538.zip) A-IoT Functionality ZTE Corporation, Sanechips discussion

[R2-2404925](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404925.zip) Discussion on the functionalities required for Ambient IOT Spreadtrum Communications discussion Rel-19

[R2-2404981](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404981.zip) Discussion on functionality aspects of ambient IoT KT Corp. discussion

[R2-2405306](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405306.zip) Discussion on functionalities required for A-IoT devices China Telecom discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2405384](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405384.zip) Functionalities for Ambient IoT Kyocera discussion Rel-19

[R2-2405520](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405520.zip) Discussion on user plane aspects for Ambient IoT LG Electronics Inc. discussion FS\_Ambient\_IoT\_solutions

[R2-2405691](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405691.zip) Discussion on functionality aspects for Ambient IoT Philips International B.V. discussion Rel-19

### 8.2.4 A-IoT Paging

Contributions should focus on paging aspects and content required for Ambient IoT for the different identified procedures (i.e. inventory, inventory + command, command only), including monitoring of DL message and determination of transmission/access occasion.

**Terminology**

[R2-2405495](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405495.zip) Discussion on A-IoT paging Samsung discussion Rel-19 FS\_Ambient\_IoT\_solutions

*Proposal 1: RAN2 to use a unified terminology to call the A-IoT paging-like message, between ‘initial trigger message’ and ‘A-IoT paging message’, during SI phase.*

- Intel feels that companies are trying to put too many things into AIoT paging and that may be bit complicated. We should try to distinguish between Inventory and command (read/write).

- ZTE thinks that for convenience it’s ok to keep this terminology for now but this paging can include initial and we can have some other DL messages.

- Mediatek prefers the initial trigger message as it has legacy implications. Qualcomm also prefers initial trigger message. CMCC thinks that initial trigger message implication that this is only for one case first access and not follow up access. LG thinks we should align the terminology.

- Huawei thinks that in the TR we can refer to paging/initial trigger message but for simplicity during discussions we can call it AIoT paging. Oppo is concerned that paging is for one or some UEs, but in AIoT there is a case that the reader doesn’t know all the UEs.

=> Noted

**Contents of the paging message**

(selection criteria)

[R2-2405227](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405227.zip) Discussion on DL messages for Ambient IoT UEs Ericsson discussion Rel-19 FS\_Ambient\_IoT\_solutions

*Proposal 4 The initial trigger message (for inventory) should address the following cases:*

*• a message containing an ID of a single A-IoT device.*

*• a message containing multiple IDs of A-IoT devices.*

*• a message containing a group ID that maps to multiple A-IoT devices. FFS what group ID is (This group ID may be a separate ID or an ID generated by masking IDs.)*

*• a message that does not contain an ID, i.e., inventory for all devices that can receive the AIoT message ~~in the coverage area.~~*

- Xiaomi thinks that for the third case it is up to SA2 and for fourth we don’t know.

- Intel thinks that these should be applied to inventory. Mediatek asks why it is specific to inventory. Intel thinks that the command would include the ID and that would be per device, group ID cannot work for command. Oppo thinks that it can also apply to command. ZTE thinks that the reader can still combine multiple command in one initial trigger message.

- LG thinks that we may need to consider segmentation.

- NEC asks whether this is one message or multiple messages. Intel thinks we can discuss that later.

- Huawei thinks that both case 2 and 3 address the same case so they can be merged. CATT agrees but we would need to further discuss what this ID is and it should be designed by SA2.

- MEdiatek is that case 2 should be further studied as there may not be a use case for it.

- Ericsson explains that you may have a group ID but you may have separate group IDs.

- Nokia wonders what multiple ID would imply (i.e. flexible MAC headers). Interdigital thinks that there may be scenario that SA2 wants to support that would require multiple IDs.

- Vodafone wonders if we should ask questions to SA2 on this and if the group ID has the same size as a device ID. Intel understands that the device IDs may be different.

- Xiaomi thinks that one reason for multiple ID is to provide CFRA resources for multiple UEs.

- Continental asks if a device can have more than one device ID or multiple group IDs. QC thinks that one device ID but it can have multiple group IDs. Oppo doesn’t think that multiple UEs share the same group ID.

- CMCC thinks that the use case for multiple IDs is for paging both known and unknonw

- NEC thinks that we should cover the case where we use a special value of ID to imply that we are paging all UEs. Qualcomm indicates that this is stage 3, when we decide it we can decide to put all bits to 0 or 1.

[R2-2404369](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404369.zip) Ambient IoT device paging TCL discussion Rel-19

Proposal 4: delta paging should be introduced to avoid duplicated access procedure in the same transaction of paging.

Proposal 5: introduce a transaction ID in the paging message to identify the same transaction of paging, the devices who have already accessed to the network successfully in the previous round of random access should not access to the network again, if the transaction ID is the same compared to the previous paging message after which it has already accessed to the network.

[R2-2404881](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404881.zip) Discussion on paging-like procedure for AIoT ZTE Corporation, Sanechips discussion Rel-19 FS\_Ambient\_IoT\_solutions

Proposal 8a: A concept of inventory area can be introduced with intention that each inventory can only be performed for the devices within a certain inventory area.

(control/resource information)

[R2-2405030](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405030.zip) Discussion on A-IoT paging CMCC discussion Rel-19 FS\_Ambient\_IoT\_solutions

*Proposal 8: The D2R transmission resources (e.g. dedicated or shared D2R resources) can be indicated in A-IoT paging.*

[R2-2404346](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404346.zip) Discussions on AIoT paging Fujitsu discussion Rel-19 FS\_Ambient\_IoT\_solutions

Proposal 1: For inventory, in addition to the optional identifier, Paging for Ambient IoT includes:

Indication that the Ambient IoT device should determine initial D2R transmission occasion, or Paging type, e.g., for inventory.

Parameter(s) for the Ambient IoT device(s) to determine initial D2R transmission occasion.

[R2-2404579](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404579.zip) Discussion on paging procedure for Ambient IoT OPPO discussion Rel-19 FS\_Ambient\_IoT\_solutions

Proposal 2: RAN2 to agree on randomizing the access occasions for different AIOT devices via the paging message.

Proposal 3: RAN2 to agree on including a parameter to distribute access occasions for different AIOT devices in the paging message.

Proposal 5: RAN2 to wait for further RAN1 progress on TDM/FDM/CDM to decide whether and how related resource allocation parameters are included in the paging message.

Discussions

- Intel thinks that this is up to RAN1 discussion and they are discussing wether this will be in upper layer.

- Apple thinks that shared resources that can be preconfigured but for CFRA we can include a dedicate message. CMCC indicates that even for shared resources the reader has to provide at least total shared slots

- Vodafonen asks how the reader can provide dedicated resources for initial.

- Oppo thinks that the resources can be indicate implicitly or explicitly.

- Mediatek and Interdigital thinks that the UE needs to determine the resources in which to respond for access. AIoT paging message indicates information from which the device can determine resources from which to respond.

**When the device monitors paging**

[R2-2404930](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404930.zip) Discussion on paging functionality of A-IoT Spreadtrum Communications discussion Rel-19

*Proposal 3: Each A-IoT device should always monitor A-IoT paging message as long as the A-IoT device has sufficient energy.*

[R2-2404579](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404579.zip) Discussion on paging procedure for Ambient IoT OPPO discussion Rel-19 FS\_Ambient\_IoT\_solutions

*Proposal 6: Regarding monitoring of paging message, RAN2 to wait for further RAN1 progress on the discussion on energy harvesting.*

Discussion

- Qualcomm, Xiaomi, Nokia has same view as Oppo.

- Apple, Huawei, thinks that we should at least to make an assumption that the UE always receives as long as there is enough energy and wait for RAN1 for further progress. Samsung and CATT thinks that from RAN2 perspective we can make an assumption.

- Qualcomm asks what we are adding with respect to the previous agreements. Intel explains that we are saying that if the UE has enough power to complete the procedure it should monitor continoulsy.

- Sony has some concerns with device energy

- Mediatek indicates that this means that the reader doesn’t need to do anything special.

**Agreements**

1 RAN2 will study the following cases for AIoT paging message:

* a message containing an ID of a single A-IoT device.
* a message containing a group ID that maps to multiple A-IoT devices.
* a message that does not contain an ID, i.e., addressed for all devices that can receive the AIoT message.
* a message containing multiple IDs of A-IoT devices. Need to confirm the need for this use case based on SA2 discussion.

What device ID and group ID and scenarios is depending on SA2 discussion.

2 AIoT paging message indicate information from which the device can determine resources to be used for response (D2R message). FFS how (e.g. implicit/explicit/configured/preconfigured) and what resources (dedicated and/or shared) are provided to the device taking into account RAN1 discussion.

3 From RAN2 perspective, we assume the device can receive as long as there is enough energy. We will wait for RAN1 further progress on device monitoring details.

**Permanent ID and Temporary ID**

[R2-2404578](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404578.zip) Discussion on A-IOT paging procedure Xiaomi discussion

Proposal 2: A-IOT paging message from BS reader to device for a single device should include a device identifier e.g., temporary ID and/or permanent ID and resource/slot for the acknowledgement message from the triggered device.

[R2-2404500](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404500.zip) Ambient IoT identifiers and "paging" procedure MediaTek Inc. discussion Rel-19 FS\_Ambient\_IoT\_solutions

**Proposal 1:** RAN2 will downselect between two solutions for the “AS identifier” used between the reader and the device: (1) random value selected by the device, (2) locally unique value assigned by the reader.

**Proposal 2:** RAN2 assume that the AS identifier may be used for multiple data transactions (read/write operations) between the reader and the device. FFS how long the same identifier might be in use.

[R2-2404689](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404689.zip) Discussion on A-IoT paging functionality LG Electronics Inc. discussion Rel-19 FS\_Ambient\_IoT\_solutions

Proposal 5. In order to support temporary identifier in A-IoT paging functionality, the A-IoT system should support the configuration of corresponding temporary identities for A-IoT devices. CN should be responsible for allocating temporary identities to A-IoT devices.

[R2-2404194](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404194.zip) Consideration on initial trigger message Intel Corporation discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2404233](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404233.zip) Discussion on Paging for Ambient IoT CATT, CEPRI discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2404383](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404383.zip) Discussion on AIoT paging Futurewei discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2404396](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404396.zip) Discussion on AIoT Paging vivo discussion Rel-18 FS\_Ambient\_IoT\_solutions

[R2-2404398](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404398.zip) Discussion on Paging Design for Ambient IoT China Telecom discussion

[R2-2404535](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404535.zip) Paging for Ambient IOT InterDigital discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2404570](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404570.zip) Ambient-IoT Paging NEC discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2404660](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404660.zip) Discussion on Ambient IoT Paging Apple discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2404810](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404810.zip) Discussion on paging procedure for Ambient IoT Lenovo discussion Rel-19

[R2-2404891](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404891.zip) Ambient IoT Paging Method Wiliot Ltd. discussion

[R2-2404903](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404903.zip) Considerations on paging for Ambient IoT Sony discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2405043](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405043.zip) A-IoT paging functionality Huawei, HiSilicon discussion

[R2-2405194](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405194.zip) On Paging procedure for Ambient IoT Nokia discussion

[R2-2405215](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405215.zip) Views on Paging for Ambient IoT Qualcomm Incorporated discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2405603](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405603.zip) Discussion on initial trigger message (paging-like message) on Ambient IoT NTT DOCOMO, INC. discussion Rel-19

### 8.2.5 A-IoT Random Access

*Contributions should focus on A-IoT random access steps for both 2-step and 4-steps RA, content required for the different procedures, and any additional aspects related to CFRA and CBRA procedures.*

**Terminology**

[R2-2405015](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405015.zip) Further discussion on random access for Ambient IoT CMCC discussion Rel-19 FS\_Ambient\_IoT\_solutions

Proposal 1.1: The terminology of ‘access occasion’ refers to each occasion(slot) for device to initiate CBRA or CFRA access in slotted-ALOHA

Proposal 1.2: The terminology of ‘access round’ refers to a whole access procedure which consist of multiple access occasions.

**4-step CBRA procedure**

[R2-2404926](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404926.zip) Discussion on random access of Ambient IOT Spreadtrum Communications discussion Rel-19

*Proposal 2: For CBRA random access procedure for A-IoT based on slotted-ALOHA as follows can be supported in R19.*

*Msg1: A-IOT device sends a sequence like RN16 to reader.*

*Msg2: Reader acknowledgement the access of A-IOT device.*

*Msg3: A-IoT device sends device ID to reader.*

*Msg4: Reader acknowledgement the reception of A-IoT device ID.*

=> Noted

[R2-2404811](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404811.zip) Discussion on random access for Ambient IoT Lenovo discussion Rel-19

Proposal 3: 4-step A-IoT random access includes contention resolution and device ID report. Detailed steps are as in the following:

*A-IoT Msg0: trigger message from the reader*

*A-IoT Msg1: the device sends an ID to the reader.*

*A-IoT Msg2: the reader confirm the ID received in Msg1.*

*A-IoT Msg3: the device report device ID*

*A-IoT Msg4: the reader send ACK to the device.*

=> Noted

[R2-2405107](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405107.zip) Further on AIoT random access Nokia discussion FS\_Ambient\_IoT\_solutions

*Proposal 2: For the 4-step contention-based access procedure, the very first D2R transmission consists of a random device identifier generated by the device.*

*Proposal 3: For the 4-step contention-based access procedure, device considers that the D2R Msg1 is successfully received when the random identifier received in the R2D Msg2 is similar to that it transmitted in Msg1.*

*Proposal 4: For the 4-step contention-based access, Msg3 includes the device ID and the D2R data transmission based on the received indication from the reader in Msg2.*

*Proposal 5: For the 4-step contention-based access procedure, the device considers the contention is resolved and the access procedure is successful when it receives a device ID in Msg4 similar to the device ID it sent in Msg3.*

=> Noted

Discussion

*A-IoT Msg1: the device sends an ID to the reader (Options random number? device ID?) .*

- CATT thinks it should be 16 bits random number. Samsung thinks size should be FFS but it should be random and generated by UE. Ericsson thinks it should be contention resolution ID. Qualcomm thinks that we need to wait for SA2. Intel doesn’t want to waste resources. CMCC thinks we should use random ID and device ID is not feasible for contention as the initial bits are common. Docomo agrees with CMCC and thinks that this procedure is terminated in reader and has security concerns with devices ID.

- Vodafone, Huawei also thinks it needs to be random and device ID can be 100 bits and don’t want to send 100 bits, 16 is already too much.

- Oppo thinks we should include device ID like RFID. For 2stepwe can use RF ID.

- Lenovo and Qualcomm also thinks a partial device ID can be used. LG agrees with oppo.

- Apple just thinks it should be a short ID. Interdigital thinks random ID is more determistic.

- Huawei asks what is partial ID device, how can we ensure it is random enough.

*A-IoT Msg2: the reader confirm the ID received in Msg1.*

- *Xiaomi thinks that we may need to include some additional information like resources.*

*A-IoT Msg3: the device report device ID*

- Xiaomi thinks that report device ID is for contention resolution. Intel thinks that device ID is for responding to inventory and whether it is for contention resolution it depends on msg4.

- Ericsson thinks that we shouldn’t include contention reolution in msg3. CATT agrees but wonders if device ID is visible or it is an upper layer message. Qualcomm thinks that it depends on the use cases and it is not always device ID.

- Huawei also agrees that contention resolution can be done by message 2.

*A-IoT Msg4: the reader send ACK to the device.*

***Agreements for 4-step CB RACH***

1 A-IoT Msg1: the device sends an ID to the reader. ID is a random ID generated by device (FFS how it is generated, e.g. randomly generated or generated based on Device ID). FFS on ID size

2 A-IoT Msg2: the reader echos the ID received in Msg1. Further information may be included in mgs2 based on RAN1 agreements

3 *A-IoT Msg3: device sends Device ID and/or any other upper layer data (depending on upper layer request)*

*FFS on contention resolution based on step 4*

*4 A-IoT Msg4: FFS on the need and presence for this*

* [AT126][022][AIoT] CB on 4 step RA (Huawei)

Intended outcome: Discuss msg 4 details and contention resolution.

Deadline: 05-24-24

R2-2405950 Report of [AT126][022][AIoT] CB on 4 step RA Huawei discussion Rel-19 FS\_Ambient\_IoT\_solutions

**2-step CBRA procedure**

[R2-2404811](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404811.zip) Discussion on random access for Ambient IoT Lenovo discussion Rel-19

Proposal 4: For 2-step A-IoT random access procedure, device includes device id information and data in the very first message to the reader. Detailed steps are as following:

A-IoT Msg0: trigger message from the reader

A-IoT MsgA: the device sends an ID, as well as data (e.g. device ID) to the reader.

A-IoT MsgB: the reader confirm the ID received in MsgA.

[R2-2404536](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404536.zip) Access Procedure for Ambient IOT InterDigital discussion Rel-19 FS\_Ambient\_IoT\_solutions

Proposal 3: Contention-based access procedure using 2-step RACH like procedure consists of the following messages: 1) A first (D2R) message containing at least a data PDU and a device ID (FFS how to determine the ID); 2) A second (R2D) message containing at least the contention resolution ID.

[R2-2405107](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405107.zip) Further on AIoT random access Nokia discussion FS\_Ambient\_IoT\_solutions

Proposal 6: For the 2-step contention-based access, the very first D2R transmission in Msg1 consists of a random device identifier generated by the device and the device ID.

Proposal 7: For the 2-step contention-based access, the device considers the contention is resolved and the access procedure is successful when it receives a device ID in Msg2 similar to the device ID it sent in Msg1.

**CFRA procedures**

[R2-2404243](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404243.zip) A-IoT random access procedure Huawei, HiSilicon discussion Rel-19 FS\_Ambient\_IoT\_solutions

Proposal 11: The contention-free random access procedure is only for the case that single device is triggered for access.

[R2-2404811](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404811.zip) Discussion on random access for Ambient IoT Lenovo discussion Rel-19

Proposal 6: CFRA procedure can be triggered if specific device id(s) is included in initial trigger message.

[R2-2405604](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405604.zip) Discussion on random access-like procedure for Ambient IoT NTT DOCOMO INC. discussion Rel-19

Proposal 1. Ambient IoT Reader can determine to conduct CFRA if the number of targeted devices indicated by the CN is one.

[R2-2404243](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404243.zip) A-IoT random access procedure Huawei, HiSilicon discussion Rel-19 FS\_Ambient\_IoT\_solutions

Proposal 12: In contention-free random access procedure, A-IoT device directly sends the upper layer data (e.g. device ID) in the very first D2R message after being triggered (i.e. skip contention resolution steps).

[R2-2405107](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405107.zip) Further on AIoT random access Nokia discussion FS\_Ambient\_IoT\_solutions

Proposal 12: For the 1-step contention-free access, the very first D2R transmission Msg1 consists of the data transmission and is transmitted using the contention-free access resource indicated by the reader in Msg0.

**Determing CBRA or CFRA**

[R2-2404661](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404661.zip) Discussion on Ambient IoT Random Access Apple discussion Rel-19 FS\_Ambient\_IoT\_solutions

Proposal 3 A triggered A-IoT device attempts contention-based access unless the A-IoT paging message indicates the contention-free access.

Proposal 4 An A-IoT-Paging message can indicate contention-free access by providing the contention-free access resources in PDRCH in the paging message.

**Determing 2-step RACH or 4-step RACH**

[R2-2404536](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404536.zip) Access Procedure for Ambient IOT InterDigital discussion Rel-19 FS\_Ambient\_IoT\_solutions

Proposal 6: RAN2 studies reader-based and device-based criteria for selection between 2-step vs 4-step AIOT access procedure.

[R2-2404811](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404811.zip) Discussion on random access for Ambient IoT Lenovo discussion Rel-19

Proposal 5: RAN2 further discuss whether and how to select different A-IoT RA types if both 4-step RA and 2-step RA are adopted.

**Access failure handling**

[R2-2404499](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2404499.zip) Discussion on UL multiple access Ericsson discussion Rel-19 FS\_Ambient\_IoT\_solutions

Proposal 13 For handling contention resolution failure and access failure, RAN2 to study the below options:

a. Option 1: a device which experiences contention-failure or access failure, re-accesses in the same round.

b. Option 2: a device which experiences contention-failure or access failure, re-accesses in the next round.

c. Option 3: the round length is adaptive. One round can be terminated earlier upon detection of too high collision. A new round with more time occasions is initiated.

[R2-2405550](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405550.zip) Discussion on random access for Ambient IoT CEWiT discussion Rel-19 FS\_Ambient\_IoT\_solutions

Proposal 3: RAN 2 to study the A-IoT device behavior for RACH failure.

[R2-2404536](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404536.zip) Access Procedure for Ambient IOT InterDigital discussion Rel-19 FS\_Ambient\_IoT\_solutions

Proposal 8: When access failure is detected, RAN2 considers performing both re-access in the additional occasions or waiting for next inventory round. FFS conditions for each case.

***Power ramping or repetition for RACH***

[R2-2405358](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405358.zip) Discussion on random access for ambient IoT Google Inc. discussion FS\_Ambient\_IoT\_solutions

Proposal 3: Support power ramping for Msg1 transmission.

***Multiple access for RACH***

[R2-2404243](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404243.zip) A-IoT random access procedure Huawei, HiSilicon discussion Rel-19 FS\_Ambient\_IoT\_solutions

Proposal 8a: Both TDMA and FDMA can apply to A-IoT Msg1.

[R2-2404585](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404585.zip) Discussion on random access for Ambient IoT OPPO discussion Rel-19 FS\_Ambient\_IoT\_solutions

Proposal 14 RAN2 wait for RAN1 progress on FDM/TDM/CDM based random access.

[R2-2404154](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404154.zip) Discussion on access procedure for ambient IOT Xiaomi discussion Rel-19

[R2-2404195](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404195.zip) Consideration on contention based and contention free based Access Intel Corporation discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2404224](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404224.zip) Initial Access procedure for Ambient IoT device NEC discussion

[R2-2404234](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404234.zip) Discussion on the Random Access for Ambient IoT CATT, CEPRI discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2404347](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404347.zip) Discussions on AIoT Random Access Fujitsu discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2404373](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404373.zip) Random Access for Ambient IOT TCL discussion Rel-19

[R2-2404384](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404384.zip) Discussion on AIoT random access Futurewei discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2404397](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404397.zip) Random Access Procedure for A-IoT Device vivo discussion Rel-18 FS\_Ambient\_IoT\_solutions

[R2-2404499](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404499.zip) Discussion on UL multiple access Ericsson discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2404539](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404539.zip) Random Access procedure for A-IoT ZTE Corporation, Sanechips discussion

[R2-2404571](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404571.zip) Discussion on the Random Access for Ambient IoT LG Uplus discussion Rel-19

[R2-2404864](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404864.zip) Discussion on A-IoT random access procedure ETRI discussion Rel-19

[R2-2404904](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404904.zip) Considerations on random access aspects for Ambient IoT Sony discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2404956](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404956.zip) Discussion on random access aspects for Ambient-IoT Continental Automotive discussion

[R2-2405140](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405140.zip) Random access aspects of Ambient IoT Qualcomm Incorporated discussion FS\_Ambient\_IoT\_solutions

[R2-2405270](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405270.zip) Considerations for Random Access Semtech Neuchatel SA discussion

[R2-2405307](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405307.zip) Discussion on random access for Ambient IoT China Telecom discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2405427](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405427.zip) Discussion on Ambient IoT random access conditions ASUSTeK discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2405496](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405496.zip) Discussion on A-IoT random access Samsung discussion Rel-19 FS\_Ambient\_IoT\_solutions

[R2-2405518](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405518.zip) Discussion on random access aspects for Ambient IoT LG Electronics Inc. discussion FS\_Ambient\_IoT\_solutions

[R2-2405688](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405688.zip) On Random Access for Ambient IoT Philips International B.V. discussion Rel-19 FS\_Ambient\_IoT\_solutions

## 8.3 AI/ML for Mobility

(FS\_NR\_AIML\_Mob; leading WG: RAN2; REL-19; SID: [RP-240082](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_103/Docs/RP-240082.zip))

Time budget: 2 TUs

Tdoc Limitation: 4 tdocs

### 8.3.1 Organizational

LS, Rapporteur input, including workplan, etc.

[R2-2404711](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404711.zip) Discussion on work plan of AI mobility SI OPPO,Nokia,Mediatek discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2404712](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404712.zip) 38.744 TR Skeleton of AI mobility NR OPPO draft TR Rel-19 38.744 0.0.0 FS\_NR\_AIML\_Mob Withdrawn

[R2-2405693](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405693.zip) TR 38.744 Skeleton of AI mobility NR OPPO draft TR Rel-19 38.744 0.0.1 FS\_NR\_AIML\_Mob

### 8.3.2 RRM measurement prediction

NOTE: papers from 8.3.2.1 and 8.3.2.2 have been grouped for discussion under 8.3.2.1

#### 8.3.2.1 Simulation assumptions and evaluation methodology for RRM measurement prediction

*Including outcome of [POST125bis][021][AI/ML mobility ] Simulation assumptions and methodology (Oppo)*

*No additional contributions are expected on aspects discussed in email discussion. Contributions, if any, should only focus on new aspects related to evaluation methodology including inter-frequency evaluation aspects.*

##### **Email discussion**

[R2-2404955](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404955.zip) Summary of [POST125bis][021][AIML mobility ] Simulation assumptions and methodology OPPO discussion Rel-19 FS\_NR\_AIML\_Mob Late

=> Revised in R2-2405941

[R2-2405941](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405941.zip) Summary of [POST125bis][021][AIML mobility ] Simulation assumptions and methodology OPPO discussion Rel-19 FS\_NR\_AIML\_Mob Late

**Agreements on simulation assumptions**

1 For 2nd study goal i.e. to enhance handover performance, evaluation exercise will focus on FR2 to FR2 intra-frequency scenario.

2 For the evaluation exercise for 2nd study goal, RAN2 should assume that there is no reduction in measurement overhead

3 Prediction accuracy metric for RRM measurement cell level prediction is defined as “RSRP difference between predicted L3 cell level measurement result and actual L3 cell level measurement result of the same cell” for all RRM sub cases

4 for RRM sub case 1, it is up to company to report L1 RSRP difference

*5* Definition of measurement reduction for intra-frequency scenario is defined as:(20/20)

Measurement reduction rate in temporal domain (MRRT) assuming same length of measurement time instances:

MRRT= skipped measurement time instances / total measurement time instances

Measurement reduction rate in spatial domain (MRRS):

MRRS = skipped beams to be measured/ total beams to be measured

6 For RRM sub case 1 and 3, it is up to company’s implementation whether L1 filtering is applied for input L1 beam level measurement. Companies are expected to report what L1 filtering they use in their simulation.

7 To agree on methodology of Intra\_F\_C\_T\_Case A as following:

Intra-frequency intra-cell temporal domain case A prediction is done by predicting measurement result(s) in prediction window based on measurement results in observation window of the same cell for both FR1\_to\_FR1 and FR2\_to\_FR2. FFS aligning the prediction window

8 To agree on methodology of Intra\_F\_C\_T\_Case B:

Intra-frequency intra-cell temporal domain prediction is done by predicting sub set measurement (case B) instances in temporal domain of the same cell for both FR1\_to\_FR1 and FR2\_to\_FR2. Several measurement reduction rates should be aligned among companies. The detail values for measurement reduction rate are FFS.

9 Intra-frequency intra-cell temporal domain prediction can be applied for all RRM sub cases. And it is up to company to report applied RRM sub case together with simulation result.

10 Methodology of Intra\_F\_C\_S: Intra-frequency intra-cell spatial domain prediction is done by measuring sub set of configured SSB as input to the model to predict L3 cell level measurements for every instance of the same cell. It is only evaluted for FR2 intra-frequency scenario and RRM sub case 1 and 3. Several measurement reduction rates should be aligned among company without defining detail pattern. The detail rate values are FFS.

11 For both Intra-frequency and inter-frequency inter-cell prediction, the measurement on cell for measurement should not be reduced in both temporal and spatial domain

12 For Inter\_F\_C (inter-frequency inter-cell), RAN2 start evaluation from co-located scenario

13 for Inter\_F\_C(inter-frequency inter-cell), RAN2 should focus on the case where cell for measurement and cell for prediction are in the same sector.

14 FR1 to FR1 inter-frequency inter-cell prediction is applicable for all RRM sub cases. And it is up to company to report applied RRM sub cases together with their simulation result.

16 Intra\_F\_Inter\_C (intra-frequency inter-cell) prediction will not be evaluated at least in early stage. Intra\_F\_Inter\_C(Intra-frequency inter-cell) refers to both co-located and non-colocated neighbouring cell prediction.

17 No traffic model is simulated

18 During simulation UE is dropped 100% outdoor

19 It is up to company’s implementation to select how to distribute the UE

20 Fast fading is necessary for RRM sub case 1 and 3. FFS case 2

21 To agree not consider Oxygen absorption (7.6.1), Time-varying Doppler shift (7.6.6), Explicit ground reflection model (7.6.8) and blockage (7.6.4) for channel modelling (38.901)

22 LOSsoft is optionally modelled in the channel modelling

23 To agree on following parameters for FR2:

1, 30GHz as central frequency

2, 200m as ISD

3, UMi with distance-dependent LoS probability function defined in Table 7.4.2-1 in TR 38.901 as baseline channel modelling

24 For FR1, following parameters are agreed:

1, Table 6.2.1-1 template is taken as starting point ( to be updated by individual proposal later on)

3, to set up 2-tier model (7 sites, 3 sectors/cells per site) (20/20)

4, 500m as ISD

5, channel modelling is UMa with distance-dependent LoS probability function defined in Table 7.4.2-1 in TR 38.901

6, 20MHz as bandwidth

7, The recommendated value in yellow in table 2.3.3-1 ( by removing wording “At least for BM-Case1,”)

25 Section 7.6.5 in 38.901 is taken as baseline for inter-frequency correlation model. Whether inter-frequency correlation model is used is optional and companies can report what they use. FFS on the understanding shadowing correlation in inter-freq. For now companies should report what assumption they have made

26 Following RRC parameters need be aligned as simulation parameters: (17/20)

- RRC parameters for measurement consolidation

- RRC parameters for L3 filtering (filter coefficient, measurement period)

27 We apply same L1 sampling period for both intra and inter (i.e. we don’t simulate existence of measurement gap as starting point)

28 Simulation assumptions discussed in section 2.3.1~2.3.3 is taken as baseline also for use cases other than RRM measurement prediction. Any update is subject to further discussion on other use cases.

29 The sample period(s) are aligned among companies for intra-frequency intra-cell temporal domain prediction. We can start with 20ms for FR2 and 40ms for FR1.

Measurement period: FFS – suggestion from rapporteur is to start with 480ms for FR2 and 200ms for FR1

30 Simulation parameters in table 2.3.4-1 (by removing Table A.2.1-7 and Table 2.1-10) are taken as starting point for both UE sided model and network sided model for FR2. The number of beams could be left for company to report. FFS Use 100Mhz for channel BW?

31 For FR1, following parameters are agreed:

2, {4GHz,30KHz} as frequency for intra-frequency scenario and {2GHz, 15KHz(FDD)/30GHz(TDD)} as another frequency for inter-frequency scenario

* [AT126][030][AIMob] Simulation assumptions (Oppo)

Intended outcome: Proposals on simulation assumptions remaining from email discussion.

Deadline: 05-24-24

[R2-2405960](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405960.zip) Draft summary of [AT126][030][AIMob] Simulation assumptions (Oppo) OPPO (rapporteur) discussion Rel-19 FS\_NR\_AIML\_Mob

**Agreements**

1 average RSRP difference is taken as prediction accuracy metric for RRM measurement prediction. Note the RSRP difference values should be an absolute value before they are averaged

2: Measurement reduction rates e.g. 1/2, for both intra-frequency intra-cell temporal domain prediction case B and spatial domain prediction. Revision in RAN2#127 is open.

3: One prediction window for FR1 and FR2 respectively as starting point. The detail value to be decided in the post email discussion.

4: UE trajectory option is up to company’s implementation and report

5: UE trajectory boundary processing is up to company’s implementation and report

6: For study goal 2, the candidate speeds are 60,90,120 km/h and company can report UE speed along with simulation result

7: For study goal 1, the candidate speeds are 30,60,90km/h and company can report UE speed along with simulation result

8: To decide on the values in table 2.4-2/3/4 in post email discussion.

|  |  |
| --- | --- |
| L3 filtering parameter for both FR1 and FR2 | Recommended value |
| FilterCoefficient | 4 |

Table 2.4-2

|  |  |
| --- | --- |
| Measurement period | Recommended value |
| FR1 to FR1 intra-frequency w.o. gap | 200ms |
| FR1 to FR1 inter-frequency with gap | 120ms |
| FR2 to FR2 intra-frequency w.o. gap | 480ms |

Table 2.4-3

|  |  |
| --- | --- |
| Consolidation parameter | Recommended value |
| nrofSS-BlocksToAverage for FR1 | 1 |
| nrofSS-BlocksToAverage for FR2 | 3 |
| absThreshSS-BlocksConsolidation | FFS |

Table 2.4-4

9: To agree on 80MHz as bandwidth for FR2

10: To agree on 10m for BS antenna height for FR2

11: Fast fading is necessary for RRM sub case 2 too.

12: The shadowing fading of two different frequency layers can be reported by company

13: To define cluster approach at least based on the number of input cells, number of output cells and their relationship in temporal domain, spatial domain and frequency domain

**Scenario priority**

[R2-2405933](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405933.zip) Way forward on prioritized evaluation scenarios for RRM measurement prediction Oppo, Nokia discussion Rel-19 FS\_NR\_AIML\_Mob

*Proposal 1: To approve the scenarios in table 2-2 for simulation evaluation*

*Proposal 2: Different simulation assumption(s) from combination cases in table 2-2 should be provided together with simulation result, if provided.*

- ZTE, Docomo, Huawei and Ericsson think that Case 3 is highest priority. Samsung thinks that case 3 thinks it is the most complicated.

- ZTE thinks that we need to discuss speed and prediction window and we should try to prioritize some speed for each sub-case. Mediatek suggests to start with high speed scenario.

=> Noted

**Agreements:**

**The following is agreed**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Case number | Prioritization | Evaluation scenario combination | target study goal | Methodology |
| 1 | Low | FR1 to FR1 intra-frequency temporal domain case A | 2nd goal | TBD |
| 2 | High | FR1 to FR1 intra-frequency temporal domain case B | 1st goal | Intra-cell |
| 3 | High | FR1 to FR1 inter-frequency (frequency domain) | 1st goal | Inter-cell |
| 4 | High | FR2 to FR2 intra-frequency temporal domain case A | 2nd goal | Intra-cell |
| 5 | Low | FR2 to FR2 intra-frequency temporal domain case B | 1st goal | TBD |
| 6 | Middle | FR2 to FR2 intra-frequency spatial domain | 1st goal | Intra-cell |

[R2-2404630](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404630.zip) On measurement prediction Apple discussion Rel-19 FS\_NR\_AIML\_Mob

Observation 2: there is already 36 scenarios for measurement predictions, counting based on the RAN2 agreements so far.

Proposal 5: Significant down-selection/prioritization of all the measurement reduction scenarios is required.

[R2-2404715](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404715.zip) Discussion on open issue of RRM measurement use case OPPO discussion Rel-19 FS\_NR\_AIML\_Mob

Proposal 2: To deprioritize evaluation on FR1 to FR1 intra-frequency temporal domain case A

Proposal 3: To prioritize evaluation on FR2 to FR2 intra-frequency temporal domain case A

Proposal 4: To prioritize evaluation on FR2 to FR2 intra-frequency spatial domain

[R2-2405480](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405480.zip) RRM measurement prediction for UE sided prediction and NW-sided prediction LG Electronics Inc. discussion FS\_NR\_AIML\_Mob

Proposal 2: Temporal domain prediction is prioritized over spatial/frequency domain prediction if TU is insufficient to treat all of them with equal priority.

**Cluster based approach:**

[R2-2404700](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404700.zip) Discussion on RRM measurement prediction Samsung discussion Rel-19 FS\_NR\_AIML\_Mob Late

Proposal. 2: RAN2 to consider the following two approaches for RRM measurement prediction.

**For Approach 1 (1-to-1 approach):**

The model input is the measurement results for a single cell B

The model output is the prediction results for a single cell A

For temporal domain prediction: Cell A = Cell B

For spatial/frequency domain prediction: Cell A Cell B

**For Approach 2 (N-to-K approach, aka Cluster approach)**

The model input is the measurement results for SET B of N cells

The model output is the prediction results for SET A of K cells

For general temporal domain prediction: SET A SET B (1<= K<=N) or   
For pure temporal domain prediction: SET A = SET B (1<=K=N)

For spatial/frequency domain prediction: SET A SET B

[R2-2404713](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404713.zip) Discussion on simulation assumptions of RRM measurement OPPO discussion Rel-19 FS\_NR\_AIML\_Mob

Proposal 3: If the simulation is based on cluster approach, the evaluated cases should be limited in order to keep simulation workload at a reasonable level

Proposal 4: The cluster methodology is defined as follows:

Cluster approach is applicable only for co-located cells.

The number of input cells and output cells should be no more than 3 and the number of output cells should be <= the number of input cells.

The input measurement result should be L3 cell level measurement results

For intra-frequency scenario, the output cells should be full or subset of the input cells

For inter-frequency scenario, the input cells are from measured frequency layer and the output cells are from predicted frequency layer

Proposal 5: To start the evaluation with cluster approach in late stage

[R2-2404999](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404999.zip) Discussion on other aspects related to RRM measurement prediction NTT DOCOMO, INC. discussion Rel-19

Proposal 1

- For all 3 cases, study the cluster-based prediction with the following detailed schemes,

Input the measurement results from multiple cells to the AI/ML models, including the serving and neighboring cells.

Output the predicted measurements corresponding to the same cells of inputs.

##### **Beam prediction:**

[R2-2405653](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405653.zip) Remaining aspects of simulation assumptions for RRM measurement prediction Huawei, HiSilicon discussion Rel-19 FS\_NR\_AIML\_Mob

Proposal 1: L3 beam level measurement prediction should be considered, and simulation assumptions for cell level measurement prediction can be reused.

Proposal 2: For L3 beam level measurement prediction model, at least consider the following cases:

Case1: To predict L1 beam level measurement results, then generate L3 beam level measurement results based on the predicted L1 beam level measurement results

Case2: To directly predict L3 beam level measurement results based on L3 beam level measurement results

Case3: To directly predict L3 beam level measurement results based on L1 beam level measurement results

[R2-2405028](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405028.zip) Discussion on AIML based RRM measurement prediction CMCC discussion Rel-19 FS\_NR\_AIML\_Mob

Proposal 6: The temporal domain prediction and spatial domain can be applied for L3 beam level results prediction.

[R2-2404308](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404308.zip) Other aspects related to RRM measurement prediction vivo discussion Rel-19 FS\_NR\_AIML\_Mob

Proposal 2: For RRM measurement prediction, besides Case1-3, a new sub use case (Case 4) is considered: To directly predict cell-level results and beam-level results of best K beams based on beam-level results and optional cell-level results.

Proposal 10: For Case 4, consider the following two sub-cases:

Case 4-1: input are L1-filtered beam measurements, output include cell level qualities without L3 filtering and L1-filtered beam qualities;

Case 4-2: input include L3-filtered beam measurements and L3-filtered cell measurements, output include L3-filtered cell level qualities and L3-filtered beam qualities.

##### **Model input/output:**

[R2-2404630](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404630.zip) On measurement prediction Apple discussion Rel-19 FS\_NR\_AIML\_Mob

Observation 1: even if we agree on common model inputs (per use case), companies should be allowed to use other inputs as well.

Proposal 4: there is no need to specify model inputs at all, companies should be free to use (and report) whatever inputs they consider useful.

[R2-2404700](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404700.zip) Discussion on RRM measurement prediction Samsung discussion Rel-19 FS\_NR\_AIML\_Mob Late

Proposal 7. For input/output of temporal domain prediction model, the measurement/prediction result at each time instance can be assumed as below.

|  |  |  |
| --- | --- | --- |
| **Prediction cases** | **Measurement result for input** | **Prediction result for output** |
| Cell-level (Case 1) | L1-RSRP per beam | L1-RSRP per beam |
| Cell-level (Case 2) | L1/L3-RSRP per cell | L3-RSRP per cell |
| Cell-level (Case 3) | L1-RSRP per beam | L3-RSRP per cell |
| Beam-level | L1-RSRP per beam | L1-RSRP per beam |

[R2-2404308](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404308.zip) Other aspects related to RRM measurement prediction vivo discussion Rel-19 FS\_NR\_AIML\_Mob

Proposal 6: For RRM measurement prediction, input and output should be with the same level of filtering, i.e., L1-filtering or L3-filtering:

* If the input are not L3-filtered measurements (i.e., L1-filtered beam measurements or Cell measurements without L3 filtering), the output should be not L3-filtered;
* If the input are L3-filtered measurements (i.e., L3-filtered beam measurements or L3-filtered cell measurements), the output should be L3-filtered.

Proposal 7: For Case 1, the input and output are L1-filtered beam-level qualities.

Proposal 8: For Case 2, consider the following two sub-cases:

* Case 2-1: input and output are cell-level qualities without L3 filtering;
* Case 2-2: input and output are L3-filtered cell-level qualities.

Proposal 9: For Case 3, the input are L1-filtered beam measurements, and the output are cell-level qualities without L3 filtering.

##### **KPIs:**

[R2-2404630](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404630.zip) On measurement prediction Apple discussion Rel-19 FS\_NR\_AIML\_Mob

*Proposal 1: Accuracy (i.e. RSRP difference) is always reported together with a time window, i.e. the KPI becomes a “paired KPI” <RSRP difference, prediction window>.*

*Proposal 2: measurement reduction rate is defined as “skipped measurements/total configured measurements” and it is reported in pairs together with accuracy, i.e. as <measurement reduction rate, accuracy>.*

*Proposal 3: no additional measurement related KPIs are needed; if time permits, additional KPIs can be considered in the future.*

=> Noted

[R2-2404307](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404307.zip) Discussion on system-level performance KPI for RRM measurement prediction vivo discussion Rel-19 FS\_NR\_AIML\_Mob

*Proposal 1: System-level performance evaluation is needed to reflect the impact on mobility performance after RRM measurement prediction is introduced.*

*Proposal 2: The system-level performance KPIs for RRM measurement prediction include Ping-pong HO rate, short ToS rate, HOF rate, RLF frequency, handover interruption.*

=> Noted

Discussion

- Apple is not sure how we can simulate time of stay etc. Let’s start with prediction accuracy and then we can see what we simulate for system level performance. Xiaomi, Ericsson agrees with Apple.

- Mediatek thinks that at least model complexity needs to be added.

=> We will start the evaluation with measurements prediction accuracy and model complexity. We can discuss system performance after we see which scenarios have good measurements prediction accuracy.

* [POST126][031][AIMob] Simulations (Oppo)

Intended outcome: Agree to evaluation documentation and small simulation related FFS (needed to start simulation evaluation for August meeting)

Endorse Skeleton TR

Deadline: 2 weeks

##### **L3 filtering, beam consolidation, etc.**

[R2-2405065](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405065.zip) Discussion on RRM measurement prediction ZTE Corporation discussion Rel-19 FS\_NR\_AIML\_Mob

Proposal 1: For the cell level measurement prediction, suggest to consider the following three phases:

*Phase1: To not consider L3 filtering, or consider filterCoefficient ki=0 in RRM measurement prediction simulation;*

*Phase 2: To consider a fixed value (e.g. filterCoefficient ki=4) for L3 filtering in simulation.*

*Phase 3: To consider variable values of filterCoefficient for L3 filtering in simulation, including both data collection and data inference.*

*For Phase2 and Phase3, RAN2 needs to discuss the assumed L3 filtering periodicity.*

- ZTE explains that some companies think we should start the ki=4. Apple thinks that a fixed coefficient works. Xiaomi thinks that the last phase is not really needed.

**Agreements**

1. For the cell level measurement prediction, start with consider a fixed value for L3 filtering in simulation. FFS which fixed value
2. For cell level prediction, RSRP difference to the actual measurement is calculated based on L3 filtered measurement result

[R2-2404601](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404601.zip) Discussion on simulation and evaluation methodology Xiaomi discussion

*Proposal 2: For cell level prediction, RSRP difference to the actual measurement is calculated based on L3 filtered measurement result.*

*Proposal 3: RAN2 to discuss how to generate cell level results based on measured and predicted beams in case 1*

=> Noted

[R2-2404475](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404475.zip) Discussion on Other Aspects related to RRM Prediction MediaTek Inc. discussion

Proposal 3: RAN2 discuss the derivation of RSRP difference = |actual RSRP – predicted RSRP|, where RSRP values refer to the actual and prediction value of the same predicted cell. The predicted RSPR value can be direct L3 RSRP prediction or derived from L1 RSRP prediction indirectly.

Proposal 4: RAN2 discuss the calculation of statistic L3 cell-level RSRP difference (includes average RSRP, CDF of RSRP, RMSE RSRP,…):

Option 1: Consider the average over both observation and prediction instance

Option 2: Consider the average over prediction instance only

Proposal 5: RAN2 align the L3 filter parameters and discuss the calculation of L3 filtering result with following options

Option 1: Only include the observation results into L3 filtering average.

Option 2: include both the observation results and prediction results into L3 filtering average

[R2-2404270](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404270.zip) Additional consideration for RRM prediction simulation assumption Intel Corporation discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2404307](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404307.zip) Discussion on system-level performance KPI for RRM measurement prediction vivo discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2404472](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404472.zip) Evaluation and Preliminary Results on AIML for RRM Measurement Prediction MediaTek Inc. discussion

[R2-2404485](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404485.zip) Simulation based evaluation of AIML aided mobility Ericsson discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2404601](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404601.zip) Discussion on simulation and evaluation methodology Xiaomi discussion

[R2-2404713](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404713.zip) Discussion on simulation assumptions of RRM measurement OPPO discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2405005](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405005.zip) Discussion on the simulation assumptions and evaluation methodology for RRM measurement prediction NTT DOCOMO, INC. discussion Rel-19

R2 [R2-2404338](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404338.zip) RRM Measurement Prediction for Enhanced Handover Lekha Wireless Solutions discussion Rel-19 Late

[R2-2405551](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405551.zip) Discussion on framework for RRM measurement CEWiT discussion Rel-19 FS\_NR\_AIML\_Mob

-2405064 Discussion on simulation assumption for RRM measurement prediction ZTE Corporation discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2405205](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405205.zip) Considerations for mobile UE trajectory generation and channel modelling for simulation evaluation Qualcomm Incorporated discussion Rel-19

[R2-2405206](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405206.zip) Simulation assumptions and evaluation methodology for RRM measurement prediction Interdigital Inc. discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2405444](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405444.zip) Further discussion on simulation assumptions and methodology for RRM measurement prediction Nokia, Nokia Shanghai Bell discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2405592](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405592.zip) Considerations on Simulation for AI/ML Mobility Samsung discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2405653](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405653.zip) Remaining aspects of simulation assumptions for RRM measurement prediction Huawei, HiSilicon discussion Rel-19 FS\_NR\_AIML\_Mob

#### 8.3.2.2 Other aspects related to RRM measurement prediction

Including definitions, metrics, additional discussions on sub use cases etc.

NOTE: documents from this sections have been grouped with other documents above for discussion

[R2-2404338](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404338.zip) RRM Measurement Prediction for Enhanced Handover Lekha Wireless Solutions discussion Rel-19 Late

[R2-2405551](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405551.zip) Discussion on framework for RRM measurement CEWiT discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2404260](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404260.zip) Other aspects related to RRM measurement prediction Fraunhofer HHI, Fraunhofer IIS discussion

[R2-2404283](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404283.zip) Discussion on AI/ML based RRM measurement prediction China Telecom Corporation Ltd. discussion Rel-19

[R2-2404308](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404308.zip) Other aspects related to RRM measurement prediction vivo discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2404313](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404313.zip) AIML Mob RRM measurement prediction NEC discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2404368](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404368.zip) AI/ML RRM measurement prediction TCL discussion Rel-19

[R2-2404474](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404474.zip) Discussion on Evaluation Methodology of RRM Prediction MediaTek Inc. discussion

[R2-2404475](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404475.zip) Discussion on Other Aspects related to RRM Prediction MediaTek Inc. discussion

[R2-2404558](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404558.zip) Discussion on AI aided RRM measurement prediction HONOR discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2404609](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404609.zip) Consideration on AI/ML based RRM measurement prediction Xiaomi discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2404629](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404629.zip) On evaluation methodology Apple discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2404695](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404695.zip) Consideration on inter-frequency RRM Measurement Prediction CATT, Turkcell discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2404700](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404700.zip) Discussion on RRM measurement prediction Samsung discussion Rel-19 FS\_NR\_AIML\_Mob Late

[R2-2404715](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404715.zip) Discussion on open issue of RRM measurement use case OPPO discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2404824](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404824.zip) Further Discussion on Other Aspects related to RRM Measurement Prediction Continental Automotive discussion Rel-19

[R2-2404936](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404936.zip) Discussion on other aspects related to RRM measurement prediction Spreadtrum Communications discussion Rel-19

[R2-2404999](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404999.zip) Discussion on other aspects related to RRM measurement prediction NTT DOCOMO, INC. discussion Rel-19

[R2-2405028](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405028.zip) Discussion on AIML based RRM measurement prediction CMCC discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2405065](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405065.zip) Discussion on RRM measurement prediction ZTE Corporation discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2405095](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405095.zip) On AI based RRM measurement predictions Ericsson discussion FS\_NR\_AIML\_Mob

[R2-2405161](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405161.zip) RRM measurement prediction scenarios and sub-use cases Nokia discussion Rel-19 FS\_NR\_AIML\_Mob Withdrawn

[R2-2405162](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405162.zip) Considerations on the predicted measurements Nokia discussion Rel-19 FS\_NR\_AIML\_Mob Withdrawn

[R2-2405165](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405165.zip) RRM measurement prediction Lenovo discussion Rel-19

[R2-2405207](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405207.zip) Beam prediction related aspects Interdigital Inc. discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2405480](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405480.zip) RRM measurement prediction for UE sided prediction and NW-sided prediction LG Electronics Inc. discussion FS\_NR\_AIML\_Mob

[R2-2405650](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405650.zip) Discussion on RRM measurement prediction Huawei, HiSilicon discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2405671](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405671.zip) RRM measurement prediction scenarios and sub-use cases Nokia Corporation discussion Rel-19

[R2-2405674](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405674.zip) Considerations on the predicted measurements Nokia Corporation discussion Rel-19

### 8.3.3 Measurement event predictions

Contributions should focus on measurement event prediction use cases/scenarios to focus during the study and relevant performance metrics/KPIs to evaluate

This AI will not be treated this meeting

[R2-2404222](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404222.zip) Target scenarios for measurement event prediction NEC discussion

[R2-2404372](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404372.zip) Discussion on measurement event prediction TCL discussion Rel-19

[R2-2404473](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404473.zip) Evaluation on AI/ML for Measurement Event Prediction MediaTek Inc. discussion

[R2-2404559](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404559.zip) Discussion on AI aided measurement events prediction HONOR discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2404823](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404823.zip) Further Discussion on Measurement Event Prediction Continental Automotive discussion Rel-19

[R2-2404905](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404905.zip) Data collection for event prediction Sony discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2405544](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405544.zip) Discussion on measurement event predictions ETRI discussion

[R2-2405612](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405612.zip) Discussion on measurement event predictions III discussion FS\_NR\_AIML\_Mob

### 8.3.4 RLF/HO failure prediction

#### 8.3.4.1 Simulation assumptions and evaluation methodology for RLF failure prediction

Contributions should focus on discussing RLF specific methodology and simulation assumptions.

##### **Scenario Prioritization:**

[R2-2404716](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404716.zip) Discussion on simulation assumptions of RLF OPPO discussion Rel-19 FS\_NR\_AIML\_Mob

Proposal 4: RLF prediction is only evaluated on FR2 carrier in temporal domain

[R2-2404602](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404602.zip) Discussion on RLF prediction simulation and evaluation methodology Xiaomi discussion

Proposal 6: RAN2 can consider both FR1 and FR2.

Proposal 7: In FR1, sudden radio channel condition change can be introduced by topology, e.g. Manhattan topology.

[R2-2405651](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405651.zip) Simulation assumptions and evaluation methodology for RLF/HOF predictions Huawei, HiSilicon discussion Rel-19 FS\_NR\_AIML\_Mob

Proposal 3: HOF/RLF prediction should focus on FR2\_to\_FR2 and high-speed scenarios (90 km/h, 120 km/h).

##### **Channel modelling:**

[R2-2404268](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404268.zip) simulation assumption for RLF prediction Intel Corporation discussion Rel-19 FS\_NR\_AIML\_Mob

Proposal 3: RLF/HO failure prediction shall follow the same simulation assumptions in RRM measurement prediction in FR2, including e.g. UE trajectory, UE distribution, UE speed, channel modelling, etc.

[R2-2405591](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405591.zip) Simulation for HOF and RLF Prediction Samsung discussion Rel-19 FS\_NR\_AIML\_Mob

Proposal 3. In HOF/RLF prediction, RAN2 shall consider LOSsoft state as a spatial consistency of LOS-NLOS transition, according to TR 38.901.

##### **Other simulation parameters:**

[R2-2404602](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404602.zip) Discussion on RLF prediction simulation and evaluation methodology Xiaomi discussion

Proposal 2: For RLF monitoring, L1 samples filtered linearly over a sliding window of 200ms (i.e. 20 samples) for Qout and 100 ms (i.e. 10 samples) for Qin, respectively.

Proposal 3: reuse the parameters in table 5.2.1.3.1 in 36.839 to determine RLF. T310 can be set to shorter values in FR2.

[R2-2404309](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404309.zip) Simulation assumptions and evaluation methodology for RLF failure prediction vivo discussion Rel-19 FS\_NR\_AIML\_Mob

Observation 1: If reusing the simulation assumptions for RRM measurement prediction without changes, no RLF occurs in the initial simulation result.

Proposal 2: To acquire the dataset for RLF prediction, RAN2 should further discuss the simulation assumptions. The following two options can be considered:

- Option 1: Adjust the simulation parameters for RRM prediction that have impacts on the coverage or handover.

- Option 2: Do not consider handover in the simulation, and the trajectory of UE will be terminated until RLF occurs.

Proposal 5: Take the mobility-specific simulation parameters of HetNet in TR 36.839 as the baseline for system-level performance evaluation of RLF prediction:

|  |  |
| --- | --- |
| **Parameter** | **Value** |
| L1 measurement period | 40ms |
| Filtering Factor K | 4 |
| A3 Offset | 3 dB |
| TimeToTrigger | 480 ms |
| Ping-Pong-Time/short time of stay | 1 s |
| Handover preparation (decision) delay | 50ms |
| Handover execution time | 40ms |

[R2-2404716](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404716.zip) Discussion on simulation assumptions of RLF OPPO discussion Rel-19 FS\_NR\_AIML\_Mob

Proposal 5: the assumption of T310 and N311 should be set as such that RLF could be a bit easy to happen and a bit hard to cancel to facilitate training and inference

Proposal 6: RAN2 is kindly asked to discuss the detailed values of T310 and N331 so that they can be aligned among companies. Our recommendation: T310 = 200ms, N311=4.

[R2-2404223](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404223.zip) Simulation assumption for RLF prediction NEC discussion

[R2-2404268](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404268.zip) simulation assumption for RLF prediction Intel Corporation discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2404309](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404309.zip) Simulation assumptions and evaluation methodology for RLF failure prediction vivo discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2404602](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404602.zip) Discussion on RLF prediction simulation and evaluation methodology Xiaomi discussion

[R2-2404696](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404696.zip) Simulation assumptions and evaluation methodology for RLF prediction CATT, Turkcell discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2404716](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404716.zip) Discussion on simulation assumptions of RLF OPPO discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2404825](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404825.zip) Discussions on simulation assumptions and evaluation methodology for RLF/HOF prediction TCL discussion Rel-19

[R2-2405031](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405031.zip) Discussion on Simulation Assumption and Methodology for RLF prediction CMCC discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2405066](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405066.zip) Discussion on simulation assumption for RLF prediction ZTE Corporation discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2405096](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405096.zip) Discussion on methodology for evaluation of RLF/HOF predictions Ericsson discussion FS\_NR\_AIML\_Mob

[R2-2405208](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405208.zip) Simulation assumptions and evaluation methodology for RLF prediction Interdigital Inc. discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2405431](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405431.zip) Discussion on simulation assumption for RLF/HO failure prediction KDDI Corporation discussion Rel-19

[R2-2405591](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405591.zip) Simulation for HOF and RLF Prediction Samsung discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2405651](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405651.zip) Simulation assumptions and evaluation methodology for RLF/HOF predictions Huawei, HiSilicon discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2405696](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405696.zip) Discussion on RLF/HO failure prediction Indian Institute of Tech (M), IIT Kanpur discussion Rel-19

#### 8.3.4.2 Other aspects related to RLF/HO failure prediction

Including definition of RLF and HO prediction sub use cases, scenarios, metrics/KPIs, prioritizations etc.

##### **Use case/modelling:**

[R2-2405004](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405004.zip) Discussions on other aspects related to RLF/HOF prediction NTT DOCOMO, INC. discussion Rel-19

*Observation 1*

*There are two approaches for AI/ML-based HoF/RLF prediction,*

*Case 1: HoF/RLF prediction based on the temporal domain RRM measurement predictions.*

*The temporal domain RRM measurement predictions of multiple cells (including serving and neighbouring) are necessary for the HoF/RLF prediction.*

*Case 2: Directly HoF/RLF prediction by AI/ML models.*

*The detailed schemes are unclear so far and need further study in RAN2.*

=> Noted

[R2-2405652](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405652.zip) Discussion on HOF and RLF prediction Huawei, HiSilicon discussion Rel-19 FS\_NR\_AIML\_Mob

*Proposal 3: For HOF/RLF prediction, RAN2 should study the feasibility and benefits for joint mode and independent mode, where the modes are defined as follows:*

*- Indirect/Joint mode: the measurement prediction is used to predict HOF/RLF, i.e. the measurement prediction can be used as inputs for the HOF/RLF prediction*

*- Direct/Independent mode: the historical HOF/RLF and other parameters other than measurement results are collected and they can be used for HOF/RLF prediction*

=> Noted

[R2-2405203](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405203.zip) RLF/HO failure prediction Qualcomm Incorporated discussion Rel-19

*Proposal 1. For simulation evaluation purposes, we propose the following framework for RLF prediction on the source cell.*

*RLF prediction is performed on the UE side using an AI/ML model and based on UE measurements of source cell beams (RLM RSs).*

*The AI/ML model for RLF prediction may produce as output one or more of the following:*

* *Prediction regarding whether RLF will occur in a certain window of time into the future.*
* *Predicted time of occurrence of RLF.*
* *Predicted times of occurrence of RLF and associated probabilities.*
* *E.g., Probability of occurrence of RLF is 10% 100ms into the future, 20% 150ms into the future, etc*.

=> Noted

Discussion on the approaches

*Case 1: Indirect: HoF/RLF prediction based on the temporal domain RRM measurement predictions.*

*The temporal domain RRM measurement predictions of multiple cells (including serving and neighbouring) are necessary for the HoF/RLF prediction.*

*Case 2: Direct: Directly HoF/RLF prediction by AI/ML models.*

* Vivo thinks that we should start with RRM measurement prediction. And think that the simplest approach Prediction regarding whether RLF will occur in a certain window of time into the future.
* Lenovo thinks that we should both direct and indirect prediction.
* Huawei indicates that we can have other parameters for direct case.
* Apple thinks that we can have both and we report what the companies are using. The essence of this study would be the direct case so we shouldn’t deprioritize.
* Samsung thinks we should do both can consider the first case as baseline, and it is unclear how to evaluate the benefit. Apple thinks we have accuracy, prediction window etc.
* Ericsson thinks that case 2 is more complex. Oppo and Apple that there many means to address the problem. Oppo thinks that both direct and indirect.
* Nokia actually thinks that direct approach is simpler as we predict right away what we want to predict, with indirect we need to identify the measurements we need to determine out.
* Qualcomm is not sure what direct approach. Huawei indicates that the difference is the data set you use to determine the model and for direct mode it can be based on historical RLF events.
* Xiaomi thinks that we can do direct, but need to discuss HOF separately from RLF and it would be difficult to determine the intermediate metric. ZTE agrees.
* ZTE would like to understand how to simulate the direct prediction
* Qualcomm is asking how do we introduce RLF events in the simulations. ZTE explains that we would need system level simulations as we need SINR.
* Mediatek thinks we can study both.

##### **Prioritization:**

[R2-2405004](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405004.zip) Discussions on other aspects related to RLF/HOF prediction NTT DOCOMO, INC. discussion Rel-19

*Proposal 1*

*Deprioritize the study of HoF/RLF for FR1.*

* *The priority of the HoF/RLF study for FR2 is lower than that of the other two prediction cases due to the lower potential gain. The study can be started during the later stage of the SI.*
* *The first issues to be studied are the details of the prediction schemes and usages of the predictions.*

- Apple thinks that we need to do FR1 as FR2 is more of an academic study as there no standalone deployments. Qualcomm thinks we can see the benefits better in FR2.

- ZTE, Huawei, Intel, Samsung, CMCC, Ericsson thinks we should do FR2 as it is the more challenging scenario. There are not many RLFs in FR1. Intel thinks that there will be limited gains in FR1.

- Apple thinks that RLFs happen in FR1

[R2-2404631](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404631.zip) On RLF and HO failure prediction Apple discussion Rel-19 FS\_NR\_AIML\_Mob

*Proposal 1: the study should focus on RLF failure due to T310 expiry as the representative RLF case*.

- ZTE thinks that this is only apply to indirect. For the direct it is not clear as we don’t know the metric and the timer is based on measurements. Apple explains that the procedure will be based on real measurements. Oppo, Xiaomi agree with Apple.

Proposal 2: for HO failure study consider only the case of T304 expiry.

[R2-2405477](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405477.zip) HOF prediction at UE side LG Electronics Inc. discussion FS\_NR\_AIML\_Mob

Proposal 1: RAN2 to review observation1 to 4, and discuss whether HOF prediction at UE side is feasible, considering both training and online inference aspects, and clarify if and how HOF prediction at UE side can provide benefit, compared to HOF prediction at network side.

Proposal 2: If HOF prediction at UE side is considered non-viable or the exclusive benefit of HOF prediction at UE side is not clear, HOF prediction is excluded from the scope of SI.

Discussion on HOF

- Huawei thinks that HOF can be predicted based on RLF so we don’t need separate simulations. ZTE is concerned that we have 6 cases just for RRM and many other sub-cases and then we have RLF, so we really don’t have time. Xiaomi also thinks we can depriotize. Interdigital thinks that given we have RRM, Measurement event, and RLF there may not be much additional gains. Both complexity and feasibility is not very clear. Lenovo thinks that it is too soon to exclude as maybe we don’t need to do separate simulations.

- ZTE and Ericsson remind everyone that the scope of SI clearly indicates that we need to follow legacy mobility framework.

##### **Input/Output:**

[R2-2404560](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404560.zip) Discussion on HO failure/RLF prediction HONOR discussion Rel-19 FS\_NR\_AIML\_Mob

*Proposal 2: Discuss the following model input/output of serving cell RLF prediction:*

*Model input:*

* *Measured serving cell L1 RSRP of SSB/CSI-RS*
* *RLF parameters (FFS)*
  + *T310*
  + *N310*
  + *N311*

*Model output:*

* + *Predicted RLF with timing information*

=> Noted

[R2-2404597](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404597.zip) Discussion on RLF/HOF prediction Samsung Shenzhen discussion Rel-19 FS\_NR\_AIML\_Mob

*Proposal 2. For RLF prediction, the baseline input is RRM measurement results of SpCell. No restriction on other inputs.*

*Proposal 4. The RLF prediction results (UE reports to NW) includes 1) the RLF probability and/or 2) the expected RLF time, as baseline.*

=> Noted

Discussion

- Apple asks if we need to discuss model inputs, are we precluding certain inputs. WE should leave it up to companies. Vivo, Xiaomi, Qualcomm and Samsung agrees with apple, but if we really want to discuss input SINR is better than RSRP.

- Nokia asks what “*the expected RLF time”.* Samsung explains it is the actual time that the UE predict. Interdigital thinks that 1 and 2 are combined, RLF probability within a time window.

- Lenovo thinks that the expected RLF time is not needed.

- LG and Vivo assumes the second one is the baseline and from that we can predict 1. Xiaomi thinks that the second one is feasible as with direct prediction it can predict the RLF. Nokia thinks we should start with 1 and can do 2 if we understand it a bit better. Oppo and Intel thinks that the time is easier to predict than the probability. Huawei thinks that we should start with first as a baseline and then use the probability to predict the time.

- Oppo thinks that getting probability or time is different and depends on the model. Huawei thinks that there has to be both time and time window are needed. Qualcomm thinks that expected time is not in scope.

- Samsung explains that the second case is for indirect case and we may not be able to get the probability. Xiaomi and ZTE agree

**Agreements**

1 Study Indirect: RLF prediction based on the temporal domain serving cell measurement predictions (e.g. SINR).

2 Study Direct: Directly RLF prediction by AI/ML models.

3 FR2 study will be prioritized for RLF prediction

4 The study should focus on RLF due to T310 expiry (i.e. in-synch/out-of-synch case) as the representative RLF case for direct and indirect prediction.

5 HOF prediction is downprioritized in our study. NO simulations/evaluations should be done/submitted

6 RLF prediction result is the RLF probability within a time window or at time instance, at least for direct case. FFS on expected RLF time and indirect case.

7 No evaluation/simulations are expected for August meeting for RLF

8 Simulation assumption specific to RLF will be discussed in August. The assumption is that we will reuse RRM simulation assumptions (where possible).

##### **KPIs:**

[R2-2404631](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404631.zip) On RLF and HO failure prediction Apple discussion Rel-19 FS\_NR\_AIML\_Mob

Proposal 6: consider additional KPIs (beyond RLF and HO prediction accuracy and prediction window) once it has been established that AI/ML is capable of predicting at least RLF with sufficiently high accuracy and sufficiently long prediction window.

[R2-2405029](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405029.zip) Discussion on other aspects related to RLF and HOF prediction CMCC discussion Rel-19 FS\_NR\_AIML\_Mob

Proposal 4: The following performance metrics/KPIs could be considered for HOF/RLF prediction:

- The performance metrics/KPIs defined for RRM measurement prediction can be reused for sub use case 1, e.g. RSRP difference to the actual measurement

- The prediction accuracy for the occurrence of HOF/RLF, e.g. precision, recall or F1-score

- Timing difference between timing of actual HOF/RLF and predicted HOF/RLF

[R2-2404269](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404269.zip) Areas of interest for RLF/HO failure prediction Intel Corporation discussion Rel-19 FS\_NR\_AIML\_Mob

Proposal 6: For RLF/HO failure prediction using AI/ML for L3 based handover, following performance KPIs are considered as baseline:

* Reduction in HO failure rate compared to non-AI/ML (%)
* Reduction in RLF rate compared to non-AI/ML (%)
* Precision and Recall for HO failure/RLF predictions

[R2-2404269](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404269.zip) Areas of interest for RLF/HO failure prediction Intel Corporation discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2404310](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404310.zip) Other aspects related to RLF/HOF prediction vivo discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2404428](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404428.zip) Discussion on further considerations for AI/ML-based mobility Continental Automotive discussion

[R2-2404560](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404560.zip) Discussion on HO failure/RLF prediction HONOR discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2404597](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404597.zip) Discussion on RLF/HOF prediction Samsung Shenzhen discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2404603](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404603.zip) Discussion on RLF and HOF prediction assumptions Xiaomi discussion

[R2-2404697](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404697.zip) Consideration on RLF and HO Failure Prediction CATT, Turkcell discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2404717](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404717.zip) Discussion on RLF and HOF use case OPPO discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2404807](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404807.zip) Prediction for HO failure and RLF Lenovo discussion Rel-19

[R2-2405004](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405004.zip) Discussions on other aspects related to RLF/HOF prediction NTT DOCOMO, INC. discussion Rel-19

[R2-2405029](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405029.zip) Discussion on other aspects related to RLF and HOF prediction CMCC discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2405067](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405067.zip) Discussion on RLF and HO failure prediction ZTE Corporation discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2405075](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405075.zip) Discussion on failure prediction NEC discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2405097](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405097.zip) Discussion on AI/ML based RLF and HOF predictions Ericsson discussion FS\_NR\_AIML\_Mob

[R2-2405203](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405203.zip) RLF/HO failure prediction Qualcomm Incorporated discussion Rel-19

[R2-2405209](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405209.zip) Other aspects related to RLF/HOF prediction Interdigital Inc. discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2405303](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405303.zip) Discussion on HO failure/RLF prediction Nokia discussion FS\_NR\_AIML\_Mob

[R2-2405382](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405382.zip) Potential scenarios for RLF/HOF prediction Kyocera discussion Rel-19 [R2-2403420](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403420.zip)

[R2-2405477](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405477.zip) HOF prediction at UE side LG Electronics Inc. discussion FS\_NR\_AIML\_Mob

[R2-2405478](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405478.zip) RLF prediction LG Electronics Inc. discussion FS\_NR\_AIML\_Mob

[R2-2405545](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405545.zip) Discussion on RLF and HO failure prediction ETRI discussion

[R2-2405652](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405652.zip) Discussion on HOF and RLF prediction Huawei, HiSilicon discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2404348](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404348.zip) Discussion on RLF/HOF prediction Fujitsu discussion Rel-19 FS\_NR\_AIML\_Mob

[R2-2404366](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404366.zip) AI/ML HO failure prediction TCL discussion Rel-19

[R2-2404367](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404367.zip) AI/ML RLF prediction TCL discussion Rel-19

[R2-2404631](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404631.zip) On RLF and HO failure prediction Apple discussion Rel-19 FS\_NR\_AIML\_Mob

## 8.4 Low-power wake-up signal and receiver for NR (LP-WUS/WUR)

(NR\_LPWUS-Core; leading WG: RAN1; REL-19; WID: [RP-240801](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_103/Docs/RP-240801.zip))

Time budget: 1 TU

Tdoc Limitation: 3 tdocs

### 8.4.1 Organizational

LS, Rapporteur input, including workplan, etc.

### 8.4.2 Procedure and configuration of LP-WUS in RRC\_IDLE/INACTIVE

Procedure and configuration of LP-WUS indicating paging monitoring triggered by LP-WUS, including at least configuration, sub-grouping and entry/exit condition for LP-WUS monitoring

[R2-2404295](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404295.zip) General considerations on the procedure for RRC\_IDLE\_INACTIVE Xiaomi Communications discussion

[R2-2404314](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404314.zip) LP-WUS procedure in RRC\_IDLE INACTIVE NEC discussion Rel-19 NR\_LPWUS-Core

[R2-2404376](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404376.zip) LP-WUS Operation in RRC\_IDLE/INACTIVE CATT discussion Rel-19 NR\_LPWUS-Core

[R2-2404418](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404418.zip) Discussion on LP-WUS WUR in RRC\_IDLE INACTIVE vivo discussion Rel-19 NR\_LPWUS-Core

[R2-2404459](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404459.zip) Discussion on procedure and configuration of LP-WUS in RRC\_IDLE/INACTIVE Huawei, HiSilicon discussion

[R2-2404460](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404460.zip) Entering/Exit conditions, relaxed serving cell measurements on the main receiver and offload of measurements to LP-WUR Vodafone discussion Rel-19

[R2-2404469](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404469.zip) LP-WUS in IDLE and INACTIVE Nokia discussion Rel-19 NR\_LPWUS-Core

[R2-2404562](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404562.zip) Discussion on LP-WUS in RRC\_IDLE/INACTIVE HONOR discussion Rel-19 NR\_LPWUS-Core

[R2-2404588](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404588.zip) Discussion on procedure and configuration of LP-WUS in RRC\_IDLE/INACTIVE OPPO discussion Rel-19 NR\_LPWUS-Core

[R2-2404674](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404674.zip) Procedure and configuration of LP-WUS in RRC\_IDLE/INACTIVE Apple discussion Rel-19 NR\_LPWUS-Core

[R2-2404860](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404860.zip) Procedure and configuration of LP-WUS for IDLE and INACTIVE mode ZTE Corporation, Sanechips discussion Rel-19 NR\_LPWUS-Core

[R2-2404906](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404906.zip) RAN2 aspects on LP-WUS/WUR in RRC Idle/Inactive mode Sony discussion Rel-19 NR\_LPWUS-Core

[R2-2404927](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404927.zip) Discussion on LP-WUS operation in IDLEI/NACTIVE mode Spreadtrum Communications discussion Rel-19

[R2-2404996](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404996.zip) WUR in Idle and Inactive Ericsson discussion Rel-19 NR\_LPWUS-Core

[R2-2405223](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405223.zip) LP-WUS in RRC\_IDLE and RRC\_INACTIVE LG Electronics Inc. discussion Rel-19 NR\_LPWUS-Core

[R2-2405308](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405308.zip) Discussion on procedure and configuration of LP-WUS in RRC\_IDLE/INACTIVE China Telecom discussion Rel-19 NR\_LPWUS-Core

[R2-2405325](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405325.zip) Discussion on LP-WUS operation in RRC\_IDLE/INACTIVE modes InterDigital, Inc. discussion Rel-19 NR\_LPWUS-Core

[R2-2405354](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405354.zip) Discussion on entry exit conditions for LP-WUS monitoring Sharp discussion

[R2-2405409](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405409.zip) Procedure and Configuration of LP-WUS in RRC Idle Inactive Mode Samsung discussion Rel-19

[R2-2405497](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405497.zip) LP-WUS operation in IDLE/INACTIVE modes CMCC discussion Rel-19 NR\_LPWUS-Core

[R2-2405577](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405577.zip) LP-WUS operation in IDLE/Inactive state Qualcomm Incorporated discussion NR\_LPWUS-Core

[R2-2405637](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405637.zip) Procedure and Configuration of LP-WUS in RRC IDLE/INACTIVE Lenovo discussion Rel-19 NR\_LPWUS-Core

[R2-2405638](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405638.zip) Discussion on Procedure and configuration in RRC\_IDLE-INACTIVE NTT DOCOMO INC.. discussion Rel-19 NR\_LPWUS-Core

[R2-2405695](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405695.zip) Discussion on LP-WUS\_WUR entry and exit conditions for RRC Idle\_Inactive mode KT Corp. discussion Rel-19 NR\_LPWUS-Core Late

### 8.4.3 RRM measurement relaxation and offloading in RRC\_IDLE/INACTIVE

RRM relaxation of UE MR for both serving and neighbor cell measurements, and UE serving cell RRM measurement offloaded from MR to LP-WUR, including the necessary conditions

[R2-2404301](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404301.zip) Discussion on RRM measurement relaxation for RRC\_IDLE\_INACTIVE Xiaomi Communications discussion

[R2-2404315](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404315.zip) LP-WUS RRM measurement relaxation NEC discussion Rel-19 NR\_LPWUS-Core

[R2-2404323](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404323.zip) Discussion on RRM measurement relaxation and offloading in RRC\_IDLE/INACTIVE Huawei, HiSilicon discussion Rel-19 NR\_LPWUS-Core

[R2-2404377](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404377.zip) RRM Relaxation and Offloading in RRC\_IDLE/INACTIVE CATT discussion Rel-19 NR\_LPWUS-Core

[R2-2404399](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404399.zip) Discussion on RRM measurement relaxation and offloading in RRC\_IDLE/INACTIVE China Telecom discussion

[R2-2404419](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404419.zip) Discussion on RRM measurement relaxation and offloading in RRC\_IDLE/INACTIVE vivo discussion Rel-19 NR\_LPWUS-Core

[R2-2404470](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404470.zip) RRM measurement relaxation in RRC\_IDLE/INACTIVE Nokia discussion Rel-19 NR\_LPWUS-Core

[R2-2404583](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404583.zip) Discussion on RRM measurement in RRC IDLE and INACTIVE OPPO discussion Rel-19 NR\_LPWUS-Core

[R2-2404675](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404675.zip) RRM measurement relaxation and offloading in RRC\_IDLE/INACTIVE Apple discussion Rel-19 NR\_LPWUS-Core

[R2-2404808](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404808.zip) RRM measurement relaxation and offloading in RRC\_IDLE/INACTIVE Lenovo discussion Rel-19

[R2-2404861](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404861.zip) RRM measurement relaxation for IDLE and INACTIVE mode ZTE Corporation, Sanechips discussion Rel-19 NR\_LPWUS-Core

[R2-2404907](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404907.zip) Discussion on RRMRAN2 aspects foron LP-WUS/WUR Sony discussion Rel-19 NR\_LPWUS-Core

[R2-2404928](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404928.zip) Discussion on RRM measurement relaxation and offloading in IDLE/INACTIVE mode Spreadtrum Communications discussion Rel-19

[R2-2404997](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404997.zip) WUR and RRM measurements Ericsson discussion Rel-19 NR\_LPWUS-Core

[R2-2405013](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405013.zip) Discussion on RRM measurement relaxation/offloading in IDLE/INACTIVE modes CMCC discussion Rel-19 NR\_LPWUS-Core

[R2-2405224](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405224.zip) RRM relaxation and RRM offloading LG Electronics Inc. discussion Rel-19 NR\_LPWUS-Core

[R2-2405328](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405328.zip) Discussion on RRM measurement relaxation and offloading InterDigital, Inc. discussion Rel-19 NR\_LPWUS-Core

[R2-2405355](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405355.zip) Discussion on serving cell RRM measurement offloading Sharp discussion

[R2-2405410](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405410.zip) RRM measurement relaxation and offloading in RRC Idle Inactive Mode Samsung discussion Rel-19

[R2-2405579](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405579.zip) LP-WUS RRM measurement relaxation and offloading Qualcomm Incorporated discussion NR\_LPWUS-Core

### 8.4.4 Procedures for LP-WUS in RRC\_CONNECTED

Procedures to allow UE MR PDCCH monitoring triggered by LP-WUS including activation and deactivation procedure of LP-WUS monitoring.

[R2-2404244](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404244.zip) Discussion on LP-WUS for RRC\_CONNECTED mode Huawei, HiSilicon discussion Rel-19 NR\_LPWUS-Core

[R2-2404302](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404302.zip) Discussing on LP-WUS monitoring for RRC\_Connected Xiaomi Communications discussion

[R2-2404316](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404316.zip) LP-WUS procedure in RRC\_CONNECTED NEC discussion Rel-19 NR\_LPWUS-Core

[R2-2404378](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404378.zip) Analysis on LP-WUS in RRC\_CONNECTED CATT discussion Rel-19 NR\_LPWUS-Core

[R2-2404380](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404380.zip) LP-WUS in RRC\_CONNECTED Nokia discussion NR\_LPWUS-Core

[R2-2404420](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404420.zip) Discussion on LP-WUS WUR in RRC\_Connected vivo discussion Rel-19 NR\_LPWUS-Core

[R2-2404584](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404584.zip) Discussion on LP-WUS in RRC\_CONNECTED OPPO discussion Rel-19 NR\_LPWUS-Core

[R2-2404676](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404676.zip) Procedures for LP-WUS in RRC\_CONNECTED Apple discussion Rel-19 NR\_LPWUS-Core

[R2-2404862](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404862.zip) Procedure for LP-WUS in RRC\_CONNECTED ZTE Corporation, Sanechips discussion Rel-19 NR\_LPWUS-Core

[R2-2404908](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404908.zip) Considerations on LP-WUS/WUR in RRC Connected mode Sony discussion Rel-19 NR\_LPWUS-Core

[R2-2404998](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404998.zip) WUR in Connected Ericsson discussion Rel-19 NR\_LPWUS-Core

[R2-2405033](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405033.zip) Discussion on LP-WUS operation in CONNECTED mode CMCC discussion Rel-19 NR\_LPWUS-Core

[R2-2405309](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405309.zip) Discussion on procedures for LP-WUS in RRC\_CONNECTED China Telecom discussion Rel-19 NR\_LPWUS-Core

[R2-2405332](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405332.zip) Discussion on LP-WUS operation in RRC\_CONNECTED mode InterDigital, Inc. discussion Rel-19 NR\_LPWUS-Core

[R2-2405411](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405411.zip) Procedures for LP-WUS in RRC Connected Mode Samsung discussion Rel-19

[R2-2405468](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405468.zip) Discussion on LP-WUS in RRC\_CONNECTED mode LG Electronics Inc. discussion Rel-19

[R2-2405578](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405578.zip) LP-WUS operation in CONNECTED state Qualcomm Incorporated discussion NR\_LPWUS-Core

[R2-2405639](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405639.zip) LP-WUS in RRC Connected Mode Lenovo discussion Rel-19 NR\_LPWUS-Core

[R2-2405687](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405687.zip) Discussion on LP-WUS in RRC\_CONNECTED NTT DOCOMO INC.. discussion Rel-19 NR\_LPWUS-Core

## 8.5 Network Energy Saving Enh.

(Netw\_Energy\_NR\_enh-Core; leading WG: RAN1; REL-19; WID: [RP-240170](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_103/Docs/RP-240170.zip))

Time budget: 1 TU

Tdoc Limitation: 3 tdocs

### 8.5.1 Organizational

LS, Rapporteur input, including workplan, etc.

[R2-2404121](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404121.zip) LS on the conditions for triggering UL WUS transmission to request on-demand SIB1 (R1-2403779; contact: MediaTek) RAN1 LS in Rel-19 Netw\_Energy\_NR\_enh To:RAN2

### 8.5.2 On-demand SSB SCell operation

Scenarios/use cases, RAN2 spec impacts and high-level solutions.

[R2-2404170](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404170.zip) Discussion on On-Demand SSB OPPO discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2404201](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404201.zip) Discussion on on-demand SSB for NES Ericsson discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2404227](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404227.zip) On-demand SSB SCell Operation Samsung discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2404261](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404261.zip) RAN2 impacts to enable on-demand SSB SCell Intel Corporation discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2404576](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404576.zip) Discussion on on-demand SSB Xiaomi discussion

[R2-2404633](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404633.zip) Discussion on RAN2 work of on-demand SSB for Scell Apple discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2404821](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404821.zip) Issues on the procedure of on-demand SSB SCell operation Lenovo discussion Rel-19

[R2-2404857](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404857.zip) Further consideration on on-demand SSB SCell operation in connected mode ZTE Corporation, Sanechips discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2404893](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404893.zip) Discussion on on-demand SSB SCell operation vivo discussion Rel-19

[R2-2404909](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404909.zip) On-demand SSB Scell operation discussion Sony discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2404931](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404931.zip) Discussion on on-demand SSB SCell operation Spreadtrum Communications discussion Rel-19

[R2-2404949](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404949.zip) Consideration on on-demand SSB SCell operation CATT discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2405034](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405034.zip) Discussion on on-demand SSB SCell operation CMCC discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2405076](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405076.zip) Discussion on On-demand SSB for SCell NEC discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2405122](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405122.zip) Discussion on on-demand SSB SCell operation for NES Huawei, HiSilicon discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2405138](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405138.zip) On demand SSB transmission for SCell InterDigital discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2405225](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405225.zip) On-demand SSB SCell operation LG Electronics Inc. discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2405289](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405289.zip) Discussion on on-demand SSB SCell operation Fujitsu discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2405294](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405294.zip) Discussion on On-demand SSB SCell Operation Qualcomm Incorporated discussion

[R2-2405310](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405310.zip) On-demand SSB SCell operation China Telecom discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2405566](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405566.zip) On demand SSB handling Nokia discussion Rel-18 Netw\_Energy\_NR\_enh-Core

[R2-2405660](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405660.zip) Discussion on on-demand SSB procedure Quectel discussion Rel-19 Late

### 8.5.3 On-demand SIB1

Any further consideration on scenarios/use cases, UL WUS configuration, triggering conditions the UE to request on-demand SIB1, procedure of on-demand SIB1 request by RACH, other impacts on RRC idle/inactive UEs (including cell barring, etc.), any impact on RRC connected UEs, etc.

[R2-2404153](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404153.zip) Discussion on on-demand SIB1 Xiaomi discussion Rel-19

[R2-2404213](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404213.zip) Discussion on on-demand SIB1 for NES Ericsson discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2404226](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404226.zip) On-demand SIB1 Samsung discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2404262](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404262.zip) UE behaviour when (re)selecting to a NES Cell including further solution details and scenarios to support OD-SIB1 Intel Corporation discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2404449](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404449.zip) Discussion on on-demand SIB1 transmission for network energy savings Fujitsu Limited.. discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2404458](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404458.zip) Scenarios, configuration, and camping Lenovo discussion Netw\_Energy\_NR\_enh-Core

[R2-2404565](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404565.zip) Discussion on scenarios and procedure of on-demand SIB1 HONOR discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2404634](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404634.zip) Further discussion on on-demand SIB1 Apple discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2404829](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404829.zip) Discussion on on-demand SIB1 for NES Rakuten Mobile, Inc discussion Rel-19

[R2-2404858](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404858.zip) Further consideration on on-demand SIB1 in idle and inactive mode ZTE Corporation, Sanechips discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2404886](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404886.zip) Discussion on the scenarios for on-demand SIB1 Google Inc. discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2404894](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404894.zip) Discussion on on-demand SIB1 for RRC IDLE and INACTIVE UE vivo discussion Rel-19

[R2-2404910](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404910.zip) UL WUS for on-demand SIB1 Sony discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2404911](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404911.zip) On-demand SIB1 for IDLE/INACTIVE UEs Sony discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2404950](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404950.zip) Consideration on on-demandSIB1 issues CATT discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2405035](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405035.zip) Discussion on on-demand SIB1 CMCC discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2405049](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405049.zip) Consideration on on-demand SIB1 OPPO discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2405136](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405136.zip) On-demand SIB1 request and reception InterDigital discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2405226](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405226.zip) On-demand transmission of SIB1 LG Electronics Inc. discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2405275](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405275.zip) Discussion on On-demand SIB1 and RACH handling NEC Telecom MODUS Ltd. discussion

[R2-2405295](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405295.zip) Discussion on On-demand SIB1 Qualcomm Incorporated discussion

[R2-2405311](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405311.zip) On-demand SIB1 for UEs in idle/inactive mode China Telecom discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2405356](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405356.zip) Discussion on on-demand SIB1 Sharp discussion

[R2-2405552](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405552.zip) Discussion on on-demand SIB1 for NES CEWiT discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2405567](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405567.zip) On demand SIB1 handling Nokia discussion Rel-18 Netw\_Energy\_NR\_enh-Core

[R2-2405611](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405611.zip) On-demand SIB1 for NES Fraunhofer IIS discussion Rel-19

[R2-2405619](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405619.zip) Discussion on on-demand SIB1 operation for NES Huawei, HiSilicon discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2405640](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405640.zip) On-demand SIB1 for Idle/Inactive mode UEs III discussion Netw\_Energy\_NR\_enh

### 8.5.4 Adaptation of common signal/channel transmissions

Further consideration of adapation of paging occasions in time domain, legacy UE impact (including barring aspect for paging adaptation), configuration aspect for paging adaptation, RAN2 spec impact and solutions for RACH adaptation (with consideration of RAN1 progress, note study of RACH adaptation in spatial domain needs to be concluded), etc.

[R2-2404183](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404183.zip) Discussion on adaptation of common signal/channel transmissions OPPO discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2404228](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404228.zip) Adaptation of common signal/channel transmissions Samsung discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2404263](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404263.zip) RAN2 impacts to enable adaptation of paging and RACH in time Intel Corporation discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2404349](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404349.zip) Adaptation of common signal or channel Fujitsu discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2404566](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404566.zip) Discussion on adaptation of common signal/channel transmissions HONOR discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2404577](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404577.zip) Discussion on common signal adaptation Xiaomi discussion

[R2-2404635](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404635.zip) Further discussion on RAN2 work of common signal transmission adaptation Apple discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2404822](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404822.zip) Paging and PRACH adaptation for NES operation Lenovo discussion Rel-19

[R2-2404851](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404851.zip) Discussion on the paging occasion adaptation ITRI discussion Netw\_Energy\_NR\_enh-Core

[R2-2404859](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404859.zip) Further consideration on paging occasion adaptation ZTE Corporation, Sanechips discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2404895](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404895.zip) Discussion on adaptation on common signal transmissions vivo discussion Rel-19

[R2-2404932](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404932.zip) Discussion on adaptation of common signal/channel transmissions Spreadtrum Communications discussion Rel-19

[R2-2404951](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404951.zip) Consideration on adaptation of common signalchannel transmissions CATT discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2405036](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405036.zip) Discussion on adaptation of common signalchannel transmissions CMCC discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2405123](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405123.zip) Discussion on adaptation of common signal/channels transmissions Huawei, HiSilicon discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2405137](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405137.zip) Time domain adaptation of common signalling and channels InterDigital discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2405276](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405276.zip) Paging enhancements and legacy UE barring NEC Telecom MODUS Ltd. discussion

[R2-2405290](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405290.zip) Adaptation of common signal/channel transmissions for NES Ericsson discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2405296](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405296.zip) Discussion on Adaptation of Common Signal/Channel Transmissions Qualcomm Incorporated discussion

[R2-2405428](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405428.zip) Discussion on paging adaptation ASUSTeK discussion Rel-19 Netw\_Energy\_NR\_enh-Core

[R2-2405568](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405568.zip) Common signal aspects of NES WI Nokia discussion Rel-18 Netw\_Energy\_NR\_enh-Core

[R2-2405576](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405576.zip) Discussion on adaptation of paging signal/channel III discussion

[R2-2405621](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405621.zip) Adaptation of Common Signals and Channels for NES Fraunhofer IIS discussion Rel-19

[R2-2405694](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405694.zip) Discussion on common signal and channel adaptation LG Electronics Inc. discussion Rel-19 Netw\_Energy\_NR\_enh

## 8.6 Mobility Enhancement Ph4

(NR\_Mob\_Ph4-Core; leading WG: RAN2; REL-19; WID: [RP-240299](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_103/Docs/RP-240299.zip))

Time budget: 2 TU

Tdoc Limitation: 2 tdocs

### 8.6.1 Organizational

LS, Rapporteur input, including workplan, etc.

[R2-2404641](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404641.zip) Important topics for further progress of the WI Apple, China Telecom (rapporteurs) discussion Rel-19 NR\_Mob\_Ph4-Core

### 8.6.2 Inter-CU LTM

Any further consideration on scenarios/use cases, signalling flows, spec impacts and solutions in LTM preparation phase (e.g. to what extend the RRC procedure, RRC modeling, reference configuration of R18 can be reused, etc.), early sync phase, and LTM cell switch execution phase, any further consideration on security key handling, and details on subsequent inter-CU LTM and subsequent intra-CU LTM after an inter-CU or intra-CU LTM switch, etc.

[R2-2404165](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404165.zip) Discussion on inter-CU LTM CATT discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2404271](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404271.zip) Supporting inter-CU LTM with intra-CU LTM Intel Corporation discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2404296](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404296.zip) Further discussion on Inter-CU LTM MediaTek inc. discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2404337](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404337.zip) Inter CU LTM Discussion in Predictive mobility Scenarios Lekha Wireless Solutions discussion Rel-19 Late

[R2-2404416](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404416.zip) Discussion on inter-CU LTM OPPO discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2404421](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404421.zip) Discussion on inter-CU LTM vivo discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2404464](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404464.zip) Important aspects regarding inter-CU LTM Ericsson discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2404563](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404563.zip) Discussion on inter-CU LTM HONOR discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2404608](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404608.zip) Discussion on Inter-CU LTM Xiaomi discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2404642](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404642.zip) Discussion on Inter-CU LTM topics Apple discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2404780](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404780.zip) Discussion on inter-CU LTM Panasonic discussion

[R2-2404796](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404796.zip) Discussions security update on inter-CU LTM KDDI Corporation discussion Rel-19

[R2-2404806](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404806.zip) Discussion on Inter-CU LTM Lenovo discussion Rel-19

[R2-2404826](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404826.zip) Discussion on inter-CU LTM LG Electronics discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2404835](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404835.zip) Radio Resource aspects for intra-CU and inter-CU LTM Rakuten Mobile, Inc discussion Rel-19

[R2-2404836](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404836.zip) Initial considerations for inter-CU LTM Rakuten Mobile, Inc discussion Rel-19

[R2-2404852](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404852.zip) Discussion on subsequent inter-CU LTM ITRI discussion NR\_Mob\_Ph4-Core

[R2-2404912](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404912.zip) LTM for Inter-CU Sony discussion Rel-19 NR\_Mob\_Ph4

[R2-2404921](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404921.zip) Discussion on inter-CU LTM NEC discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2404923](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404923.zip) Discussion on Inter-CU LTM Spreadtrum Communications discussion Rel-19

[R2-2404980](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404980.zip) Discussion on Inter-CU LTM KT Corp. discussion

[R2-2404984](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404984.zip) Further discussion on Inter-CU LTM cell switch Transsion Holdings discussion Rel-19

[R2-2405037](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405037.zip) Discussion on Inter-CU LTM CMCC discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2405062](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405062.zip) Discussion on inter-CU LTM ZTE Corporation discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2405111](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405111.zip) Discussion on Inter-CU LTM Interdigital, Inc. discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2405163](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405163.zip) On inter-CU aspects for LTM Nokia discussion Rel-19 NR\_Mob\_Ph4 Withdrawn

[R2-2405221](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405221.zip) Inter-CU LTM Huawei, HiSilicon discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2405316](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405316.zip) Discussion on Inter-CU LTM China Telecom discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2405362](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405362.zip) Potential issues on inter-CU LTM Kyocera discussion Rel-19 [R2-2403422](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403422.zip)

[R2-2405391](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405391.zip) Further Considerations to Support Inter-CU LTM Samsung discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2405460](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405460.zip) Discussion on security and procedures for inter-gNB LTM Qualcomm Incorporated discussion

[R2-2405469](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405469.zip) Inter-gNB LTM and moving PDCP anchor Qualcomm Incorporated, NTT DOCOMO, Sony discussion

[R2-2405519](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405519.zip) Discussion on inter-CU LTM ITL discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2405553](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405553.zip) LTM Enhancements for Inter-CU mobility CEWiT discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2405588](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405588.zip) Discussion on Inter-CU LTM ETRI discussion Rel-19

[R2-2405620](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405620.zip) Discussion on issues for supporting inter-CU LTM Sharp discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2405666](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405666.zip) On inter-CU aspects for LTM Nokia discussion Rel-19

### 8.6.3 Measurement enhancements for LTM

Details of event-triggered L1 measurement reporting including configuration aspect, beam level and/or cell level measurement?, event definitions, need of L1 filtering and timeToTrigger, Hys, etc.

[R2-2404166](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404166.zip) Event-triggered L1 measurement reporting CATT discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2404297](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404297.zip) Discussion on event-triggered L1 measurement reporting MediaTek inc. discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2404350](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404350.zip) Measurement enhancements for LTM Fujitsu discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2404417](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404417.zip) Discussion on event-triggered L1 measurement reporting OPPO discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2404422](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404422.zip) Discussion on measurement enhancement for LTM vivo discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2404457](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404457.zip) L1 Measurement enhancements Lenovo discussion NR\_Mob\_Ph4-Core

[R2-2404463](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404463.zip) Important aspects regarding event triggered L1 measurements Ericsson, T-Mobile USA discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2404564](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404564.zip) Discussion on L1 measurement enhancements HONOR discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2404677](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404677.zip) Measurement enhancements for LTM Apple discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2404779](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404779.zip) Event-Triggered L1 Report for LTM Huawei, HiSilicon discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2404924](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404924.zip) Discussion on measurement enhancements for LTM Spreadtrum Communications discussion Rel-19

[R2-2404985](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404985.zip) Discussion on measurement enhancement for LTM Transsion Holdings discussion Rel-19

[R2-2405014](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405014.zip) Discussion on LTM measurement related enhancements CMCC discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2405063](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405063.zip) Discussion on event-triggered L1 measurement reporting ZTE Corporation discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2405077](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405077.zip) Discussion on event triggered L1 measurement reporting NEC discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2405112](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405112.zip) Event triggered L1 reporting for LTM Interdigital, Inc. discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2405149](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405149.zip) On Measurement-related Enhancements for Rel-19 LTM Nokia discussion Rel-19 NR\_Mob\_Ph4 [R2-2403305](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403305.zip)

[R2-2405317](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405317.zip) Discussion on event-triggered L1 measurement reporting for LTM China Telecom discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2405385](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405385.zip) Consideration on event-triggered L1 measurement reporting Kyocera discussion Rel-19 [R2-2403423](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403423.zip)

[R2-2405392](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405392.zip) Support of Event-Triggered L1 Measurement Enhancements for LTM Samsung discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2405487](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405487.zip) Discussion on event-triggered L1 measurement reporting Xiaomi discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2405492](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405492.zip) Measurement related enhancements for LTM LG Electronics Inc. discussion NR\_Mob\_Ph4-Core

[R2-2405522](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405522.zip) Discussion on measurement enhancements for LTM ITL discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2405607](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405607.zip) Proposals for event triggered L1 measurement report Sharp discussion Rel-19 NR\_Mob\_Ph4-Core

[R2-2405610](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405610.zip) Discussion on event triggered L1 measurement reporting KDDI Corporation discussion Rel-19

## 8.7 XR Enhancements Ph3

(NR\_XR\_Ph3-Core; leading WG: RAN2; REL-19; WID: [RP-240791](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_103/Docs/RP-240791.zip))

Time budget: 2 TU

Tdoc Limitation: 4 tdocs

### 8.7.1 Organizational

LS, Rapporteur input, including workplan, etc.

[R2-2404138](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404138.zip) LS on Application-Layer FEC Awareness at RAN (S2-2405604; contact: Qualcomm) SA2 LS in Rel-19 FS\_XRM\_Ph2 To:RAN2, SA4 Cc:RAN3

[R2-2404139](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404139.zip) LS on FS\_XRM Ph2 (S2-2405625; contact: vivo) SA2 LS in Rel-18 FS\_XRM\_Ph2 To:SA4, RAN2, RAN3

[R2-2404288](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404288.zip) XR Workplan Nokia, Qualcomm (Rapporteurs) Work Plan Rel-19 NR\_XR\_Ph3-Core

[R2-2404289](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404289.zip) XR Agreements Nokia, Qualcomm (Rapporteurs) discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404290](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404290.zip) SA2 Overview Nokia, Qualcomm (Rapporteurs) discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404291](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404291.zip) RAN3 Overview Nokia, Qualcomm (Rapporteurs) discussion Rel-19 NR\_XR\_Ph3-Core

#### 8.7.1.1 Discussion on LSs from SA2

Discussion on RAN2 replies to SA2 LS on FS\_XRM Ph2 (S2-2405625) and SA2 LS on Application-Layer FEC Awareness at RAN (S2-2405604)

[R2-2404174](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404174.zip) Draft reply LS on FS\_XRM PH2 Qualcomm Incorporated LS out Rel-19 NR\_XR\_Ph3-Core To:SA2; Cc:SA4, RAN3

[R2-2404175](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404175.zip) Reply LS on application-layer FEC awareness at RAN Qualcomm Incorporated LS out Rel-19 NR\_XR\_Ph3-Core To:SA2; Cc:SA4, RAN3

[R2-2404264](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404264.zip) RAN2 responses to SA2 LSs on Rel-19 XR Intel Corporation discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404292](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404292.zip) Discussing SA2 Liaisons Nokia, Nokia Shanghai Bell discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404294](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404294.zip) Discussion on SA2 LSs for Rel-19 XR Xiaomi discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404329](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404329.zip) Discussion on SA2 LSs CATT discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404333](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404333.zip) Discussion on SA2 Liaisons on Rel-19 XR Meta discussion

[R2-2404423](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404423.zip) Discussion on LS from SA2 on FS\_XRM Ph2 vivo discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404424](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404424.zip) Draft reply LS to SA2 on FS\_XRM PH2 vivo LS out Rel-19 NR\_XR\_Ph3-Core To:SA2; Cc:RAN3, SA4

[R2-2404511](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404511.zip) Discussion on LSs from SA2 Ericsson discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404552](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404552.zip) Discussion on LSs from SA2 ZTE Corporation, Sanechips discussion

[R2-2404775](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404775.zip) Discussion on LSs from SA2 for XR Huawei, HiSilicon discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404812](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404812.zip) Discussion on LS from SA2 Lenovo discussion Rel-19

[R2-2405003](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405003.zip) Discussion on LSs from SA2 InterDigital discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2405050](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405050.zip) Discussion on RAN2 impact based on SA2 LS OPPO discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2405199](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405199.zip) Discussion on AL-FEC Awareness at RAN NEC discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2405300](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405300.zip) Discussion on SA2 LS on XR CMCC discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2405301](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405301.zip) Draft Reply LS to SA2 on XR CMCC LS out Rel-19 NR\_XR\_Ph3-Core To:SA2

[R2-2405542](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405542.zip) Discussion on SA2 LSs for XR LG Electronics Inc. discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2405546](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405546.zip) Discussion on SA2 LS on AL-FEC Awareness at RAN Futurewei discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2405593](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405593.zip) RAN2 Aspects of SA2 LSes on XRM and AL-FEC Samsung discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2405662](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405662.zip) Discussion on LS from SA2 on AL-FEC awareness vivo discussion Rel-19 NR\_XR\_Ph3-Core

### 8.7.2 Multi-modality support

Objective: Study and if justified, specify aspects related to multi-modality (intra-UE) (with coordination with SA2/SA4 as needed by LS request). Aim to facilitate efficient and effective support for XR application with Multiple QoS flows with multi-modal inter-dependencies, meeting multi-modal QoS requirements, e.g. synchronization and/or coordination. Efficiency enhancements are expected to be visible in terms of capacity or power consumption.

Including aspects such as:

* what kind of multi-modality information is useful at the gNB and/or UE
* how is this information used by the gNB/UE and what benefits this brings
* what are the potential benefits and enhancements from multi-modal awareness depending on traffic direction (UL/DL)
* identification of potential impacts on other WGs due to multi-modal awareness enhancements
* other enhancements for multi-modal traffic, e.g. power saving, scheduling

[R2-2404265](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404265.zip) Justification and Enhancements for Multi-modal Services Intel Corporation discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404330](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404330.zip) Discussion on Multi-Modality CATT discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404334](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404334.zip) Discussion on Multi-Modality XR Meta discussion

[R2-2404351](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404351.zip) Discussions on Multi-modality Awareness Fujitsu discussion Rel-19 NR\_XR\_Ph3-Core [R2-2402278](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402278.zip)

[R2-2404400](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404400.zip) Discussion on multi-modality support for XR China Telecom discussion

[R2-2404403](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404403.zip) Multi-modality support Nokia, Nokia Shanghai Bell discussion NR\_XR\_Ph3-Core

[R2-2404425](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404425.zip) Discussion on Multi-modality vivo discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404455](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404455.zip) Discussion on Multi-modality support for XR traffic Xiaomi Communications discussion

[R2-2404512](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404512.zip) Discussion on multi-modality Ericsson discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404549](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404549.zip) RAN enhancements for Multi-Modality support ZTE Corporation, Sanechips, China Telecom, Meta, Sony, China Unicom discussion

[R2-2404556](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404556.zip) Discussion on Multi-modal support for XR LG Electronics Inc. discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404572](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404572.zip) Discussion on Multi-modality support for XR TCL discussion

[R2-2404649](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404649.zip) Views on Support of Multi-Modality Services in Rel-19 XR Apple discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404774](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404774.zip) Discussion on multi-modal XR Huawei, HiSilicon discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404866](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404866.zip) Multi-modality support for XR Google Inc. discussion

[R2-2404880](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404880.zip) Enhancements for support of Multi-Modal XR applications Lenovo discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404913](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404913.zip) multi modal flows and DRB mapping Sony discussion Rel-19 NR\_XR\_Ph3

[R2-2404937](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404937.zip) Discussion on XR Multi-modality Spreadtrum Communications discussion Rel-19

[R2-2405000](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405000.zip) Multi-modality support for XR InterDigital discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2405016](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405016.zip) Further discussion on multi-modality support for XR CMCC discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2405051](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405051.zip) Discussion on the multi-modality support OPPO discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2405072](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405072.zip) Discussion on multi-modality support NEC discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2405158](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405158.zip) Further aspects of multi-modality support in RAN Samsung discussion

[R2-2405439](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405439.zip) Draft LS to SA2 on XR multi-modality CMCC LS out Rel-19 NR\_XR\_Ph3-Core To:SA2

[R2-2405614](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405614.zip) Discussion on multi-modality MediaTek Inc. discussion Rel-19

### 8.7.3 RRM measurement gaps/restrictions related enhancements

Objective: Specify enhancements to enable transmission/reception in gaps/restrictions that are caused by RRM measurements (from inter-frequency RRM measurement gaps, or intra-frequency measurements, or other scheduling restrictions etc).

**This agenda item will not be treated during RAN2#126 and no contributions should be submitted for this AI for this meeting.**

### 8.7.4 Scheduling enhancements

Objective: For the UL, Study and if justified, Specify enhancements using delay/deadline information, for support of UL scheduling to enable high XR capacity while meeting delay requirements/avoiding too late PDUs.

Including aspects such as:

* whether/how to resolve the issue of data with low remaining time being delayed due to other data from LCHs with higher LCH priority
* enhancing DSR with additional information, e.g. what is additional information, can it refer to non-delay critical data etc.

[R2-2404176](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404176.zip) Discussion on delay-aware scheduling Qualcomm Incorporated discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404182](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404182.zip) Discussion on scheduling enhancements for XR OPPO discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404266](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404266.zip) LCH prioritization and DSR enhancements Intel Corporation discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404331](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404331.zip) Consideration on XR-specific Scheduling Enhancement CATT discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404335](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404335.zip) Discussion on Scheduling Enhancement for XR Meta discussion

[R2-2404352](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404352.zip) Discussions on delay-aware LCP Fujitsu discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404401](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404401.zip) Scheduling enhancements for XR traffic China Telecom discussion

[R2-2404426](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404426.zip) Discussion on scheduling enhancement for XR vivo discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404456](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404456.zip) Discussion on scheduling enhancements of XR traffic Xiaomi Communications discussion

[R2-2404514](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404514.zip) Discussion on scheduling enhancements Ericsson discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404550](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404550.zip) Scheduling enhancements for XR ZTE Corporation, Sanechips discussion

[R2-2404567](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404567.zip) Discussion on UL scheduling enhancements HONOR discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404573](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404573.zip) Discussion on LCP enhancement in XR TCL discussion

[R2-2404650](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404650.zip) Complementary RLC Mechanisms for LCP Enhancements Apple, Lenovo, CATT, OPPO discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404651](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404651.zip) Views on DSR Enhancements for Rel-19 XR Apple discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404708](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404708.zip) Scheduling Enhancements for XR Nokia, Nokia Shanghai Bell discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404849](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404849.zip) Discussion on the LCP enhancements for XR ITRI discussion NR\_XR\_Ph3-Core

[R2-2404878](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404878.zip) Enhanced uplink scheduling for XR Lenovo discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404887](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404887.zip) Considerations on delay-sensitive scheduling for XR NEC discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404914](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404914.zip) UL Scheduling enhancements for XR Sony discussion Rel-19 NR\_XR\_Ph3

[R2-2404938](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404938.zip) Discussion on XR scheduling enhancement Spreadtrum Communications discussion Rel-19

[R2-2405001](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405001.zip) Scheduling enhancements for XR InterDigital discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2405017](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405017.zip) Further discussion on scheduling enhancement for XR CMCC discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2405119](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405119.zip) Delay-aware scheduling enhancements Huawei, HiSilicon discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2405357](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405357.zip) Discussion on scheduling enhancement for XR Google Inc. discussion NR\_XR\_Ph3-Core

[R2-2405404](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405404.zip) Discussion on scheduling enhancements for XR DENSO CORPORATION discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2405446](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405446.zip) Solutions for DSR enhancement TCL discussion Rel-19

[R2-2405473](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405473.zip) LCP enhancement Sharp discussion

[R2-2405481](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405481.zip) Discussion on XR scheduling enhancements III discussion NR\_XR\_Ph3-Core

[R2-2405535](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405535.zip) Discussion on UL scheduling enhancements MediaTek Inc. discussion Rel-19 38.321 NR\_XR\_Ph3, NR\_XR\_Ph3-Core

[R2-2405543](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405543.zip) Discussion on Scheduling enhancement for XR LG Electronics Inc. discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2405594](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405594.zip) Scheduling Enhancements for Rel-19 XR Samsung discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2405654](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405654.zip) Discussion on XR uplink Scheduling enhancements Rakuten Mobile, Inc discussion Rel-19

### 8.7.5 RLC enhancements

Objective: RLC re-transmission related enhancements for operation of RLC Acknowledged Mode (AM) with small packet delay budget.

Including aspects such as:

* enhancements to ensure timely RLC retransmission(s) for XR
* how to avoid unnecessary retransmissions (e.g. of out-dated packets)

[R2-2404177](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404177.zip) Discussion on RLC enhancements Qualcomm Incorporated discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404197](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404197.zip) RLC AM retransmission enhancements Xiaomi discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404212](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404212.zip) Discussion on RLC AM Enhancements CANON Research Centre France discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404255](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404255.zip) Discussion on RLC re-transmission related enhancements OPPO discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404267](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404267.zip) RLC (re)transmission enhancements Intel Corporation discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404293](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404293.zip) RLC AM enhancements for XR Nokia, Nokia Shanghai Bell discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404332](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404332.zip) Consideration on XR-specific RLC Enhancement CATT discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404336](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404336.zip) Discussion on RLC AM Enhancements for XR Meta discussion

[R2-2404353](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404353.zip) Discussions on RLC enhancements Fujitsu discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404359](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404359.zip) Discussion on RLC enhancements SHARP Corporation discussion NR\_XR\_Ph3-Core

[R2-2404402](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404402.zip) Discussion on RLC enhancements for XR China Telecom discussion

[R2-2404427](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404427.zip) Discussion on RLC enhancement for XR vivo discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404551](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404551.zip) RLC enhancements for XR ZTE Corporation, Sanechips discussion

[R2-2404568](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404568.zip) Discussion on RLC enhancements for XR HONOR discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404596](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404596.zip) Discussion on RLC AM enhancements Huawei, HiSilicon discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404627](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404627.zip) Considerations on RLC re-transmission related enhancements for XR KDDI Corporation discussion

[R2-2404652](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404652.zip) Views on RLC-AM Enhancements for Rel-19 XR Apple discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2404813](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404813.zip) AM RLC Enhancement Lenovo discussion Rel-19

[R2-2404850](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404850.zip) RLC re-transmission enhancements for XR ITRI discussion NR\_XR\_Ph3-Core

[R2-2404915](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404915.zip) RLC periodic poll based on RLC SN Sony discussion Rel-19 NR\_XR\_Ph3

[R2-2404939](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404939.zip) Discussion on timely RLC retransmission(s) Spreadtrum Communications discussion Rel-19

[R2-2405002](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405002.zip) RLC enhancements for XR InterDigital discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2405032](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405032.zip) Discussion on RLC retransmission enhancements in XR CMCC discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2405195](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405195.zip) RLC AM Enhancement NEC discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2405285](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405285.zip) Discussion on RLC AM Enhancements Ericsson discussion Rel-19

[R2-2405329](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405329.zip) Discussion on details of RLC enhancements for XR LG Electronics Inc. discussion Rel-19 NR\_XR\_Ph3-Core

[R2-2405380](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405380.zip) Discussion on RLC enhancements on small packet delay budget scenario MediaTek Inc. discussion Rel-19 38.322 NR\_XR\_Ph3, NR\_XR\_Ph3-Core

[R2-2405445](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405445.zip) Solutions for RLC AM retransmission enhancement TCL discussion Rel-19

[R2-2405493](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405493.zip) Discussion on RLC enhancements for XR Samsung discussion Rel-19 NR\_XR\_Ph3-Core

## 8.8 NTN for NR Ph3

(NR\_NTN\_Ph3-Core; leading WG: RAN2; REL-19; WID: [RP-240775](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_103/Docs/RP-240775.zip)

LTE\_TN\_NR\_NTN\_mob, leading WG: RAN2, Rel-19 WID: RP-240846)

Time budget: 2 TU

Tdoc Limitation: 4 tdocs

### 8.8.1 Organizational

LS, Rapporteur input, including workplan, etc.

[R2-2404137](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404137.zip) LS on Support of Regenerative-based Satellite Access (S2-2405600; contact: vivo) SA2 LS in Rel-19 FS\_5GSAT\_Ph3\_ARCH To:RAN3 Cc:RAN2

[R2-2404207](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404207.zip) Updated work plan for NR NTN Ph3 CATT, Thales Work Plan

### 8.8.2 Downlink coverage enhancements

Contributions should focus on RAN2 aspects of DL coverage enhancements (e.g. cell level / beam level DTX/DRX mechanism, etc.).

[R2-2404159](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404159.zip) Discussion on Downlink Coverage Enhancements vivo discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2404204](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404204.zip) Discussion on downlink coverage enhancements CATT discussion

[R2-2404354](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404354.zip) Discussions on beam and cell level DTX DRX Fujitsu discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2404582](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404582.zip) Discussion on DL coverage enhancement in NTN OPPO discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2404654](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404654.zip) DL coverage enhancement in NTN Apple discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2404682](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404682.zip) Discussion on cell DTX/DRX Qualcomm Incorporated discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2404739](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404739.zip) Discussion on system level enhancement for downlink coverage enhancements for NTN Xiaomi discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2404797](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404797.zip) Downlink coverage enhancement in NTN Lenovo discussion Rel-19

[R2-2405081](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405081.zip) Consideration on downlink coverage enhancements ZTE Corporation, Sanechips discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405124](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405124.zip) Discussion on DL coverage enhancements Huawei, HiSilicon, Turkcell discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405173](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405173.zip) Discussion on Downlink Coverage Enhancement Samsung discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405229](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405229.zip) On the applicability of downlink coverage enhancements Nokia, Nokia Shanghai Bell discussion NR\_NTN\_Ph3-Core

[R2-2405240](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405240.zip) Discussion on RAN2 Aspects for Downlink Coverage Enhancements in NR NTN evolution THALES discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405299](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405299.zip) Questions identified to RAN1 on Downlink Coverage Enhancement CMCC discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405312](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405312.zip) Downlink Coverage in NR NTN China Telecom discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405320](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405320.zip) Consideration on downlink coverage enhancement NEC Corporation. discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405375](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405375.zip) Downlink coverage enhancement for NTN InterDigital discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405376](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405376.zip) [Draft] LS on DL coverage enhancements InterDigital LS out Rel-19 NR\_NTN\_Ph3-Core To:RAN1

[R2-2405449](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405449.zip) Downlink coverage enhancements Ericsson discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405600](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405600.zip) Downlink coverage enhancements for NTN NERCDTV discussion Withdrawn

[R2-2405613](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405613.zip) Downlink coverage enhancements for NTN NERCDTV discussion

[R2-2405626](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405626.zip) Discussion for DL coverage enhancement Sharp discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405636](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405636.zip) Discussion on downlink coverage enhancements in NR NTN ETRI discussion Rel-19 NR\_NTN\_Ph3-Core

### 8.8.3 Uplink Capacity/Throughput Enhancement

No contributions are expected for this AI at this meeting.

### 8.8.4 Support of Broadcast service

Contributions should address the signaling of the intended service area of a broadcast service.

[R2-2404160](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404160.zip) Discussion on MBS Broadcast Provision in NTN vivo discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2404206](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404206.zip) Discussion on support of broadcast service via NR NTN CATT discussion

[R2-2404282](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404282.zip) Discussion on support of a broadcast service in NR NTN ETRI discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2404355](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404355.zip) Discussions on signaling of the intended service area of a broadcast service Fujitsu discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2404429](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404429.zip) Discussion on support of broadband services Continental Automotive discussion

[R2-2404580](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404580.zip) Discussion on providing MBS service area in NTN network OPPO discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2404621](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404621.zip) Discussion on MBS Broadcasting Control over NTN access TCL discussion

[R2-2404655](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404655.zip) Broadcast service support over NTN Apple discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2404679](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404679.zip) MBS broadcast service area information Qualcomm Incorporated discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2404798](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404798.zip) On broadcast service area indication in NTN Lenovo discussion Rel-19

[R2-2404841](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404841.zip) Support for broadcast services in NR NTN Ericsson discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2404853](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404853.zip) Discussions on the configuration of intended service areas ITRI discussion NR\_NTN\_Ph3-Core

[R2-2404854](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404854.zip) Discussions on limiting broadcast service in the intended service areas ITRI discussion NR\_NTN\_Ph3-Core

[R2-2404916](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404916.zip) Broadcast service area signaling Sony discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2404982](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404982.zip) Discussion on the support of broadcast service HONOR discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405020](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405020.zip) Support of MBS broadcast service for NTN CMCC discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405082](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405082.zip) Consideration on broadcast service enhancements ZTE Corporation, Sanechips discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405099](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405099.zip) Discussion on the service area of a broadcast service Xiaomi discussion

[R2-2405125](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405125.zip) Discussion on supporting MBS broadcast over NTN Huawei, HiSilicon, Turkcell discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405147](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405147.zip) On the Signalling Aspects of MBS over Rel-19 NR NTN Nokia discussion Rel-19 NR\_NTN\_Ph3 [R2-2403306](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403306.zip)

[R2-2405174](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405174.zip) Discussion on Broadcast Service Area in NTN Samsung discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405204](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405204.zip) Discussions on MBS in Rel-19 NTN TOYOTA Info Technology Center discussion Rel-19

[R2-2405211](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405211.zip) Discussion on support of broadcast service in NTN LG Electronics France discussion Rel-19 NR\_NTN\_Ph3 [R2-2403121](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403121.zip)

[R2-2405239](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405239.zip) Discussion on MBS broadcast additional features for NR NTN Evolution THALES discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405277](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405277.zip) Clarification on intended service area NEC Telecom MODUS Ltd. discussion

[R2-2405377](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405377.zip) Support for broadcast service in NTN InterDigital discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405525](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405525.zip) Discussion on support of broadcast service ITL discussion Rel-19

[R2-2405627](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405627.zip) Discussion on MBS service support for NR NTN Sharp discussion Rel-19 NR\_NTN\_Ph3-Core

### 8.8.5 Support of regenerative payload

Contributions should focus on the needed updates for Stage 2 description and on whether any existing essential features would be affected - and potentially need any modifications - in a regenerative payload architecture.

[R2-2404161](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404161.zip) Discussion on Mobility with Regenerative Payload vivo discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2404205](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404205.zip) Further discussion on regenerative payload CATT discussion

[R2-2404256](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404256.zip) Further discussion on regenerative payload for satellite switch with resync NTU discussion Rel-19 Late

[R2-2404590](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404590.zip) Discussion on satellite switch with resynch for regenerative payload OPPO discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2404622](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404622.zip) Discussion on Support of NTN Regenerative Architecture TCL discussion Withdrawn

[R2-2404680](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404680.zip) Discussion on regenerative payload Qualcomm Incorporated discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2404799](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404799.zip) Considerations on regenerative payload in NTN Lenovo discussion Rel-19

[R2-2404917](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404917.zip) Satellite switch with re-sync in regenerative payload Sony discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405021](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405021.zip) Support of regenerative payload CMCC discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405083](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405083.zip) Consideration on support of regenerative payload ZTE Corporation, Sanechips discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405100](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405100.zip) Discussion on the support of regenerative payload Xiaomi discussion

[R2-2405126](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405126.zip) Discussion on support of regenerative payload Huawei, HiSilicon, Turkcell discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405148](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405148.zip) On the feasibility of the existing NTN features over regenerative architecture Nokia discussion Rel-19 NR\_NTN\_Ph3

[R2-2405156](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405156.zip) Regenerative payload for NR NTN Samsung discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405196](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405196.zip) Support Regenerative Payload NEC discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405241](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405241.zip) Regenerative NTN payload support in NR NTN Evolution THALES discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405313](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405313.zip) Stage-2 updates for regenerative payload China Telecom discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405448](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405448.zip) Stage 2 updates for regenerative payload Ericsson discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405629](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405629.zip) Discussion for regenerative payload Sharp discussion Rel-19 NR\_NTN\_Ph3-Core

### 8.8.6 LTE to NR NTN mobility

Support for idle mode mobility between LTE and NR NTN.

[R2-2404162](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404162.zip) Discussion on LTE TN to NR NTN Mobility vivo discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2404198](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404198.zip) Support for LTE to NR-NTN idle mode mobility Telit Communications S.p.A. ; Thales discussion [R2-2403066](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403066.zip)

[R2-2404211](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404211.zip) Support of Idle Mode Mobility from EUTRA TN to NR NTN CATT discussion

[R2-2404591](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404591.zip) Discussion on LTE to NR NTN idle mode mobility OPPO discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2404656](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404656.zip) Mobility from LTE TN to NR NTN Apple discussion Rel-19 LTE\_TN\_NR\_NTN\_mob-Core

[R2-2404681](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404681.zip) Idle mode mobility from LTE to NR NTN Qualcomm Incorporated discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2404759](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404759.zip) Discussion on cell reselection from E-UTRA TN to NR NTN MediaTek Inc. discussion NR\_NTN\_Ph3-Core [R2-2403226](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403226.zip)

[R2-2404800](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404800.zip) On LTE to NR-NTN IDLE mobility Lenovo discussion Rel-19

[R2-2404840](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404840.zip) E-UTRAN TN to NR-NTN mobility Ericsson discussion Rel-19 LTE\_TN\_NR\_NTN\_mob

[R2-2404986](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404986.zip) Further discussion on idle mode cell reselection form LTE to NR NTN Transsion Holdings discussion Rel-19

[R2-2405022](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405022.zip) Considerations on cell reselection enhancements from E-UTRAN TN to NR-NTN CMCC discussion Rel-19 LTE\_TN\_NR\_NTN\_mob

[R2-2405084](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405084.zip) Consideration on idle mode mobility between LTE TN and NR NTN ZTE Corporation, Sanechips discussion Rel-19

[R2-2405101](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405101.zip) Discussion on the cell reselection from LTE to NR NTN Xiaomi discussion

[R2-2405108](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405108.zip) Discussion on LTE to NR NTN mobility Interdigital, Inc. discussion Rel-19 LTE\_TN\_NR\_NTN\_mob

[R2-2405127](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405127.zip) Discussion on LTE to NR NTN mobility Huawei, HiSilicon, Turkcell discussion Rel-19 LTE\_TN\_NR\_NTN\_mob-Core

[R2-2405146](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405146.zip) On How to Address E-UTRA TN to NR NTN Mobility in IDLE mode Nokia discussion Rel-19 NR\_NTN\_Ph3

[R2-2405155](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405155.zip) E-UTRAN TN to NR NTN mobility basic scenario and signalling Samsung discussion Rel-19 LTE\_TN\_NR\_NTN\_mob-Core

[R2-2405210](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405210.zip) Discussion on support of LTE to NR NTN cell reselection LG Electronics France discussion Rel-19 LTE\_TN\_NR\_NTN\_mob [R2-2403123](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2403123.zip)

[R2-2405314](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405314.zip) Consideration of LTE TN to NR NTN mobility China Telecom discussion Rel-19 NR\_NTN\_Ph3-Core

[R2-2405630](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405630.zip) Discussion for LTE to NR NTN mobility Sharp discussion Rel-19 LTE\_TN\_NR\_NTN\_mob-Core

## 8.9 IoT NTN Ph3

(IoT\_NTN\_Ph3-Core; leading WG: RAN2; REL-19; WID: RP-240776)

Time budget: 1 TU

Tdoc Limitation: 2 tdocs

### 8.9.1 Organizational

LS, Rapporteur input, including workplan, etc.

[R2-2404144](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404144.zip) LS to SA2 and RAN2 on selected satellite architecture for Store and Forward (S3-241567; contact: InterDigital) SA3 LS in Rel-19 FS\_5GSAT\_Ph3\_SEC To:SA2, RAN2 Cc:SA, RAN3, SA3-LI

[R2-2405378](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405378.zip) [Draft] Reply LS on selected satellite architecture for Store and Forward InterDigital LS out Rel-19 IoT\_NTN\_Ph3-Core To:SA3 Cc:SA2

### 8.9.2 Support of Store & Forward

Contributions should focus on possible impacts to the radio interface.

[R2-2404163](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404163.zip) RAN2 Aspects for Store & Forward vivo discussion Rel-19 IoT\_NTN\_Ph3-Core

[R2-2404199](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404199.zip) Considerations on S&F operation from device perspective Telit Communications S.p.A. discussion Revised

[R2-2404202](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404202.zip) Discussion on support of store and forward operation CATT discussion

[R2-2404321](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404321.zip) Overview of the Store and Forward satellite operation Huawei, HiSilicon, Turkcell discussion Rel-19 IoT\_NTN\_Ph3-Core

[R2-2404409](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404409.zip) Overview of the Store and Forward satellite operation Huawei, HiSilicon discussion Rel-19 IoT\_NTN\_Ph3-Core Withdrawn

[R2-2404436](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404436.zip) Elements of Store & Forward Operation PANASONIC discussion

[R2-2404589](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404589.zip) Discussion on Store & Forward satellite operation OPPO discussion Rel-19 IoT\_NTN\_Ph3-Core

[R2-2404657](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404657.zip) Support of S&F operation in IoT NTN Apple discussion Rel-19 IoT\_NTN\_Ph3-Core

[R2-2404683](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404683.zip) S&F satellite operation with full eNB as regenerative payload Qualcomm Incorporated discussion Rel-19 IoT\_NTN\_Ph3-Core

[R2-2404801](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404801.zip) Store and Forward support in IoT NTN Lenovo discussion Rel-19

[R2-2404882](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404882.zip) RAN2 impacts of supporting Store&Forward operation in IoT NTN ZTE Corporation, Sanechips discussion Rel-19 IoT\_NTN\_Ph3-Core [R2-2402380](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402380.zip)

[R2-2404885](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404885.zip) Discussion on the store and forward operation Google Inc. discussion Rel-19

[R2-2404979](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404979.zip) Considerations on S&F operation from device perspective Telit Communications S.p.A., Novamint, Sateliot discussion [R2-2404199](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404199.zip)

[R2-2404987](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404987.zip) Discussion on support of Store&Forward Transsion Holdings discussion Rel-19

[R2-2405012](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405012.zip) Discussion on IoT NTN Store and Forward CMCC discussion Rel-19 IoT\_NTN\_Ph3-Core

[R2-2405102](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405102.zip) Discussion on the support of store and forward satellite operation Xiaomi discussion

[R2-2405132](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405132.zip) RAN2 impact on S&F mode MediaTek Inc. discussion IoT\_NTN\_Ph3-Core [R2-2402942](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402942.zip)

[R2-2405153](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405153.zip) On RAN2 aspects of Store and Forward Samsung discussion Rel-19 IoT\_NTN\_Ph3-Core

[R2-2405193](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405193.zip) Radio Interface Aspects for Store And Forward mode operation of IoT-NTN Nokia, Nokia Shanghai Bell discussion

[R2-2405197](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405197.zip) Support of Store and Forward NEC discussion Rel-19 IoT\_NTN\_Ph3-Core

[R2-2405242](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405242.zip) Considerations on Store & Forward Satellite Operation SHARP Corporation discussion Rel-19

[R2-2405315](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405315.zip) The impact of access for Store & Forward in IoT NTN China Telecom discussion Rel-19 IoT\_NTN\_Ph3-Core

[R2-2405429](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405429.zip) Discussion on information for Store & Forward ASUSTeK discussion Rel-19 IoT\_NTN\_Ph3-Core

[R2-2405450](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405450.zip) Support for store and forward Ericsson discussion Rel-19 IoT\_NTN\_Ph3-Core

[R2-2405657](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405657.zip) Discussion of the Store and Forward satellite operation TCL discussion

### 8.9.3 Uplink Capacity Enhancement

At this meeting contributions should only focus on the possible enhancements to reduce the necessary uplink and downlink signaling to complete an EDT transaction (Msg3 transmission without msg1/RAR; efficient delivery of msg4 / RRCEarlyDataComplete).

[R2-2404164](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404164.zip) Discussion on EDT Enhancement for IoT-NTN vivo discussion Rel-19 IoT\_NTN\_Ph3-Core

[R2-2404203](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404203.zip) On signalling overhead reduction for EDT in IoT NTN CATT discussion

[R2-2404322](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404322.zip) Overview of capacity enhancement for uplink Huawei, HiSilicon, Turkcell discussion Rel-19 IoT\_NTN\_Ph3-Core

[R2-2404410](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404410.zip) Overview of capacity enhancement for uplink Huawei, HiSilicon discussion Rel-19 IoT\_NTN\_Ph3-Core Withdrawn

[R2-2404561](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404561.zip) Discussion on EDT optimisation in IoT-NTN HONOR discussion Rel-19 IoT\_NTN\_Ph3-Core

[R2-2404581](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404581.zip) Discussion on enhanced EDT for IoT NTN OPPO discussion Rel-19 IoT\_NTN\_Ph3-Core

[R2-2404658](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404658.zip) Uplink capacity enhancement in IoT NTN Apple discussion Rel-19 IoT\_NTN\_Ph3-Core

[R2-2404684](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404684.zip) Discussion on EDT enhancements Qualcomm Incorporated discussion Rel-19 IoT\_NTN\_Ph3-Core

[R2-2404740](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404740.zip) Discussion on uplink capacity enhancements for IOT NTN Xiaomi discussion Rel-19 IoT\_NTN\_Ph3-Core

[R2-2404802](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404802.zip) EDT for uplink capacity enhancement in NTN Lenovo discussion Rel-19

[R2-2404842](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404842.zip) UL capacity enhancements objectives for IoT NTN Ericsson discussion Rel-19 IoT\_NTN\_Ph3-Core

[R2-2404884](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404884.zip) Consideration on enhanced early data transmission in IoT NTN ZTE Corporation, Sanechips discussion Rel-19 IoT\_NTN\_Ph3-Core [R2-2402381](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402381.zip)

[R2-2404922](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404922.zip) Uplink Capacity Enhancement for EDT transaction Spreadtrum Communications discussion Rel-19

[R2-2405023](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405023.zip) Considerations on EDT enhancements for IoT-NTN CMCC discussion Rel-19 IoT\_NTN\_Ph3-Core

[R2-2405109](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405109.zip) Msg3 transmission without msg1/RAR Interdigital, Inc. discussion Rel-19 IoT\_NTN\_Ph3-Core

[R2-2405110](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405110.zip) Efficient delivery (reduced overhead) of msg4 / RRCEarlyDataComplete Interdigital, Inc. discussion Rel-19 IoT\_NTN\_Ph3-Core

[R2-2405133](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405133.zip) Discussion on enhanced EDT MediaTek Inc. discussion IoT\_NTN\_Ph3-Core [R2-2402943](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2402943.zip)

[R2-2405154](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405154.zip) Scenarios and procedures for IoT NTN uplink capacity enhancements Samsung discussion Rel-19 IoT\_NTN\_Ph3-Core

[R2-2405201](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405201.zip) Efficient delivery of RRCEarlyDataComplete message TOYOTA Info Technology Center discussion Rel-19 IoT\_NTN\_Ph3-Core

[R2-2405202](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405202.zip) Discussion on Msg3-EDT enhancements ESA discussion Rel-19

[R2-2405321](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405321.zip) Consideration on EDT enhancement for IoT-NTN NEC Corporation. discussion Rel-19 IoT\_NTN\_Ph3-Core

[R2-2405442](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405442.zip) Discussion on UL capacity enhancement for IoT NTN Nokia, Nokia Shanghai Bell discussion Rel-19 IoT\_NTN\_Ph3-Core

[R2-2405655](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405655.zip) Consideration on enhanced early data transmission in IoT NTN TCL discussion

## 8.10 SON MDT Ph4

(NR\_ENDC\_SON\_MDT\_Ph4-Core; leading WG: RAN3; REL-19; WID: RP-234038)

Time budget: 0.5 TU

Tdoc Limitation: 2 tdocs

### 8.10.1 Organizational

LS, Rapporteur input, including workplan, etc.

[R2-2404122](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404122.zip) LS on support of MRO for MR-DC SCG failure (R3-242195; contact: ZTE) RAN3 LS in Rel-19 NR\_ENDC\_SON\_MDT\_Ph4-Core To:RAN2

[R2-2405631](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405631.zip) Workplan for Rel-19 SON\_MDT Enhancement China Unicom Work Plan NR\_ENDC\_SON\_MDT\_Ph4-Core

### 8.10.2 MRO enhancements for Rel-18 mobility features

LTM, CHO with candidate SCGs, subsequent CPAC

[R2-2404311](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404311.zip) MRO for Rel-18 mobility features vivo discussion Rel-19 NR\_ENDC\_SON\_MDT\_Ph4-Core

[R2-2404356](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404356.zip) Discussion on MCG LTM MRO enhancement Fujitsu discussion Rel-19 NR\_ENDC\_SON\_MDT\_Ph4-Core

[R2-2404734](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404734.zip) MRO for CHO with candidate SCG Nokia discussion Rel-19 NR\_ENDC\_SON\_MDT\_Ph4-Core

[R2-2404735](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404735.zip) MRO for LTM Nokia discussion Rel-19 NR\_ENDC\_SON\_MDT\_Ph4-Core

[R2-2404814](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404814.zip) Discussion on MRO for R18 mobility Lenovo discussion Rel-19

[R2-2404867](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404867.zip) Discussion on the MRO enhancements for R18 mobility features Beijing Xiaomi Software Tech discussion Rel-19

[R2-2404874](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404874.zip) MRO enhancements for LTM NEC discussion Rel-19 NR\_ENDC\_SON\_MDT\_Ph4-Core

[R2-2404875](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404875.zip) MRO for CHO with candidate SCG(s) and SCPAC NEC discussion Rel-19 NR\_ENDC\_SON\_MDT\_Ph4-Core

[R2-2404952](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404952.zip) Discussion on MRO Enhancements for Mobility CATT discussion Rel-19 NR\_ENDC\_SON\_MDT\_Ph4-Core

[R2-2404977](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404977.zip) MRO for Rel-18 mobility ZTE, Sanechips discussion Rel-19 NR\_ENDC\_SON\_MDT\_Ph4-Core

[R2-2405018](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405018.zip) Discussion on MRO enhancements for R18 mobility features CMCC discussion Rel-19 NR\_ENDC\_SON\_MDT\_Ph4-Core

[R2-2405094](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405094.zip) SON support for MRO Ericsson discussion NR\_ENDC\_SON\_MDT\_Ph4-Core

[R2-2405150](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405150.zip) MRO enhancements for Rel-18 mobility features Samsung discussion

[R2-2405298](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405298.zip) SON/MDT reports for LTM Kyocera discussion

[R2-2405334](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405334.zip) MRO enhancement for Rel-18 mobility Huawei, HiSilicon discussion NR\_ENDC\_SON\_MDT\_Ph4-Core

[R2-2405430](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405430.zip) Discussion on random access report for LTM ASUSTeK discussion Rel-19 NR\_ENDC\_SON\_MDT\_Ph4-Core

[R2-2405538](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405538.zip) Failure and Near failure cases for CHO with Candidate SCGs LG Electronics discussion Rel-18 NR\_ENDC\_SON\_MDT\_Ph4-Core

[R2-2405539](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405539.zip) SHR for MCG LTM LG Electronics discussion Rel-18 NR\_ENDC\_SON\_MDT\_Ph4-Core

[R2-2405569](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405569.zip) Discussion on MRO enhancement for R18 mobility features SHARP Corporation discussion

[R2-2405580](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405580.zip) MRO enhancement for SON and MDT Qualcomm Incorporated discussion NR\_ENDC\_SON\_MDT\_Ph4-Core

[R2-2405632](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405632.zip) Discussion on MRO enhancement for mobility China Unicom discussion NR\_ENDC\_SON\_MDT\_Ph4-Core

### 8.10.3 SON/MDT for Slicing

No contributions are expected and this AI will not be treated in RAN2#126, in wait for RAN3 progresses

### 8.10.4 SON/MDT for NTN

No contributions are expected and this AI will not be treated in RAN2#126, in wait for RAN3 progresses

### 8.10.5 Leftovers from Rel-18

RACH optimization for SDT, MHI Enhancement for SCG Deactivation/Activation, MRO for MR-DC SCG failure

[R2-2404312](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404312.zip) RACH optimization for SDT vivo discussion Rel-19 NR\_ENDC\_SON\_MDT\_Ph4-Core

[R2-2404815](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404815.zip) Discussion on MRO for MR-DC SCG failure Lenovo discussion Rel-19

[R2-2404868](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404868.zip) Discussion on the RACH optimization for SDT Beijing Xiaomi Software Tech discussion Rel-19

[R2-2404953](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404953.zip) Consideration on leftovers from Rel-18 SONMDT CATT discussion Rel-19 NR\_ENDC\_SON\_MDT\_Ph4-Core

[R2-2404978](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2404978.zip) Rel-18 leftovers for SON MDT ZTE, Sanechips discussion Rel-19 NR\_ENDC\_SON\_MDT\_Ph4-Core

[R2-2405019](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405019.zip) MHI Enhancement for SCG Deactivation/Activation CMCC, CATT, Ericsson, ZTE, Huawei, HiSilicon discussion Rel-19 NR\_ENDC\_SON\_MDT\_Ph4-Core

[R2-2405164](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405164.zip) SON/MDT enhancements for leftover topics from R18 Samsung discussion

[R2-2405335](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405335.zip) Discussion on support of the Rel-18 leftovers Huawei, HiSilicon discussion NR\_ENDC\_SON\_MDT\_Ph4-Core

[R2-2405560](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405560.zip) Discussion on RACH enhancement for SDT SHARP Corporation discussion

[R2-2405581](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405581.zip) SON and MDT Rel-18 leftover issues Qualcomm Incorporated discussion NR\_ENDC\_SON\_MDT\_Ph4-Core

[R2-2405633](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405633.zip) Discussion on RACH optimization for SDT China Unicom discussion NR\_ENDC\_SON\_MDT\_Ph4-Core

[R2-2405668](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405668.zip) On Rel.18 leftovers Ericsson discussion

# 9 Breakout session reports

No documents shall be submitted to this AI or its sub-AIs. It is only for at-meeting-generated contents.

## 9.1 Session on V2X/SL, R19 NES and MOB

[R2-2405701](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2405701.zip) Report from session on V2X/SL, R19 NES and MOB Vice Chairman (Samsung) discussion

## 9.2 Session on R18 MIMOevo, R18 MUSIM, and R19 LP-WUS

[R2-2405702](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2405702.zip) Report from session on R18 MIMOevo, R18 MUSIM, and R19 LP-WUS Vice Chairman (CATT) discussion

## 9.3 Session on NR NTN and IoT NTN

[R2-2405703](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2405703.zip) Report from Break-Out Session on NR NTN and IoT NTN Session chair (ZTE) discussion

## 9.4 Session on positioning and sidelink relay

[R2-2405704](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2405704.zip) Report from session on positioning and sidelink relay Session chair (MediaTek) discussion

## 9.5 Session on Mobility Enh and Mobile IAB

[R2-2405705](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2405705.zip) Report from session on Mobility Enh and Mobile IAB Session chair (MediaTek) discussion

## 9.6 Session on R18 MBS, R18 QoE and R19 XR

[R2-2405706](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2405706.zip) Report from session on R18 MBS, R18 QoE and R19 XR Session chair (Huawei) discussion

## 9.7 Session on maintenance, SON/MDT and eRedCap

[R2-2405707](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_126\\Docs\\R2-2405707.zip) Report from maintenance, SON/MDT and eRedCap breakout session Session chair (Ericsson) discussion

## 9.8 Session on further NR coverage enhancements

[R2-2405708](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_126\Docs\R2-2405708.zip) Report from Further NR coverage enhancements session Session chair (ZTE) discussion