3GPP TSG-RAN WG2 Meeting #124 [R2-2xxxxxx](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2xxxxxx.zip)

Chicago, USA, Nov. 13th – 17th, 2023

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

[R2-2311700](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311700.zip) Agenda for RAN2#124 Chairman agenda Late

=> Approved

## 2.2 Approval of the report of the previous meeting

[R2-2311701](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311701.zip) RAN2#123bis Meeting Report MCC report Late

=> Approved

**List of AT meeting email discussions**

* [AT124][002][NES] Running UE capability CRs (Vivo)

Intended outcome: Review update to R2-2312577 and R2-2312578 capturing only RAN2 specific UE capability agreements (i.e. eventA4BasedCondHandoverNES-r18)

Deadline: Thursday 11-17-2023

* [AT124][003][R17 UP] Review updated CR [R2-2312978](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312978.zip) (Ericsson)

- Intended outcome: approve by email

- Deadline: Thursday

* [AT124][005][UAV] LS to RAN4 (Nokia)

- Aproved LS to RAN4 sharing our UE capabilities and question on NS values.

- Deadline: Thursday (to be approved by email)

* [AT124][009][UL TX switching] LS to RAN4 and RAN1 (Huawei)

Intended outcome: LS to RAN4

Deadline: Thursday (to be approved by email)

* [AT124][011][intra-band] 38.331 and 38.306(KDDI)

Intended outcome: endorse CRs and LS to RAN4

Deadline: Nov. 17 (to be approved by email)

* [AT124][012][BWP restrictions] LS to RAN4 (Vivo)

Intended outcome: Approve LS to RAN4 indicating the RAN2 agreements are related to PCell and ask about SPCell

Deadline: Nov. 17 (to be approved by email)

* [POST124][013][BWP restrictions] 38.331 and 38.300(Vivo)

Intended outcome: split 38.331 into configuration and capability. Agree to 38.331 and endorse UE capability CRs

Deadline: Nov. 17 (to be approved by email)

* [AT124][014][MT-SDT] 38.321 CR (Huawei)

- Intended outcome: agree to CR by email

- Deadline: Friday

* [AT124][016][FR2 multi-RX] 38.331 and 38.306(apple)

Intended outcome: split 38.331 into configuration and capability. Agree to 38.331 and endorse UE capability CRs

Deadline: Nov. 17 (to be approved by email)

* [AT124][019][XR] PDCP discard (CATT)

Intended outcome: way forward on PDCP discard and simple solution if agreable

Deadline: Thursday 12-10-2023

* [AT124][020][AI/ML] LCM (Interdigital)

Intended outcome: review update TP with comments from meeting and after reviewing Nokia TP. Keep description simple

Deadline: Thursday

* [AT124][021][AI/ML] UE side data training (Ericsson)

Intended outcome: attempt to capture the acceptable solutions for UE side data training (attempt the solutions 1 and 3)

Deadline: Thursday

**Post email discussions**

* [POST124][007][MC enhancement] 38.331 CR (Huawei, NTT Docomo)

Intended outcome: agree to 38.331 CR

Deadline: 2 weeks

* [POST124][017][MC enhancement] 38.300 CR (NTT Docomo)

Intended outcome: agree to CR

Deadline: 2 weeks

* [POST124][008][UL Tx switching] UE Capability CR ()

Intended outcome: endorse 38.306 and 38.331 for UE capability

Deadline: Nov. 23rd

* [POST124][010][MSD capability] Capability CRs (Huawei)

Intended outcome: agree to 38.331 and 38.306 CR

Deadline: Nov. 23rd

* [POST124][015][LCID ext] 38.321 CR (Samsung)

- Intended outcome: agree to CR by email

- Deadline: 2 weeks

## 2.3 Reporting from other meetings

## 2.4 Instructions

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

- Current Plan: Rel-18 R2 Functional Freeze is Q4 2023, i.e. Rel-18 TSes need to be created at latest at this point in time.

- CRs for all Rel-18 WIs to be agreed at RAN2#124 (November 2023). Running Draft CRs need to be updated to be real CRs.

- Previously in-principle-agreed Rel-18 CRs (e.g. for TEI18 or WIs ending before November 2023) need to be updated towards the latest TS version and submitted for final CR agreement at RAN2#124 (CR editor / proponent need to do this).

- Such CRs do not need to be resubmitted to intermediate meetings before RAN2#124.

- Such CR may be superseded by revision due to correction, which is in-principle agreed (see bullet below). CR editor / proponent should be ready to handle such revisions.

- For WG meetings until functional freeze (including this) it is possible to maintain and revise Rel-18 CRs, also in-principle-agreed Rel-18 CRs, also for WIs with no TU budget (they are kept in the agenda for this purpose). It is better to fix issues now rather than wait for ASN.1 review.

- For revision proposals for Rel-18 CRs/DraftCRs, use TPs attached to discussion documents or DraftCRs (Includes current running Rel18 CRs or update of in-principle agreed Rel-18 CRs)

- CR editors / Rapporteurs are requested to continue even after close of their respective WIs to support maintenance related to their respective CR / WI.

Rel-18 RRC parameters and MAC CEs

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

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

- For information see also [R2-2306732](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_124\\Docs\\R2-2306732.zip), LS on Signalling alternatives, from R2#122.

Rel-18 UE capabilities

- Handling in RAN2 is expected similar to Rel-17.

- For information see also [R2-2306810](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2306810.zip) Further Guidelines on UE capability definitions LS out, from R2#122.

Expected Outcomes

- EUTRA UE capabilities are covered in WI-specific CRs.

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

- UE capabilities in LPP 37355 are covered in CR for the Positioning WI.

During the work on NR UE caps:

- In a Common Rel-18 Agenda Item (AI): RAN1 and RAN4 features 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 are handled per WI. Case-by-case, for selected WIs, RAN1 and RAN4 features handled specifically per WI. The outcomes are covered in WI-specific Running CRs (draft CRs). It is expected that WI-specific UE cap running CRs will be merged with the Running Mega CRs only at/after RAN2#124.

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

Tdoc submission for RAN2#124 deadline

- Nov. 3rd 1000 UTC

## 2.5 Others

[R2-2311702](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311702.zip) RAN2 Handbook MCC discussion Late

=> Noted

[R2-2313587](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313587.zip) Guidelines on writing a CR MCC discussion Late

- Ericsson indicates that WI rapporteurs should include all spec in the CR for RRC to ensure that we can run a syntax check

- Qualcomm explains that we need the ASN.1 so that it compiles not the full procedure text.

=> ASN.1 syntax check needs to be done before approval of Introductions CRs.

# 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);

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 adressed 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

### 4.1.0 In Principle Agreed CRs

### 4.1.1 Other

[R2-2312062](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312062.zip) Corrections to inter-node RRC messages for 5GC CATT CR Rel-16 36.331 16.13.0 4965 - F LTE\_eMTC5-Core, TEI16

[R2-2312063](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312063.zip) Corrections to inter-node RRC messages for 5GC CATT CR Rel-17 36.331 17.6.0 4966 - A LTE\_eMTC5-Core, TEI16

[R2-2312117](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312117.zip) Correction on the UL HARQ RTT timer length MediaTek Inc. CR Rel-16 36.321 16.8.0 1574 - F NB\_IOTenh3-Core

[R2-2312118](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312118.zip) Correction on the UL HARQ RTT timer length MediaTek Inc. CR Rel-17 36.321 17.6.0 1575 - A NB\_IOTenh3-Core

[R2-2312119](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312119.zip) Correction on the UL HARQ RTT timer length MediaTek Inc. discussion

[R2-2312122](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312122.zip) MFBI behavior of non-default duplex band (b8) and default duplex (b106) systems Anterix discussion Rel-18 36.307 Late

[R2-2312709](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312709.zip) Correction on drx-InactivityTimer definition for NB-IoT UE Nokia, Nokia Shanghai Bell, Xiaomi, Ericsson CR Rel-16 36.321 16.8.0 1576 - F NB\_IOTenh3-Core

[R2-2312710](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312710.zip) Correction on drx-InactivityTimer definition for NB-IoT UE Nokia, Nokia Shanghai Bell, Xiaomi, Ericsson CR Rel-17 36.321 17.6.0 1577 - A NB\_IOTenh3-Core

[R2-2313022](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313022.zip) On EUTRA MFBI signalling Ericsson discussion Rel-17 TEI17

## 4.2 NB-IoT and eMTC support for NTN Rel-17

(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))

Tdoc Limitation: 1 tdocs

This Agenda Item is treated in the Breakout session that includes NTN

A single CR per TS with miscelaneous corrections is encouraged. Small editorial corrections should be sent directly to rapporteur. Big open issues can be discussed with contributions with CR in the appendix of the contribution

### 4.2.0 In Principle Agreed CRs

[R2-2313161](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313161.zip) Clarification on ul-SyncValidityDuration in SIB31 ZTE Corporation, Sanechips CR Rel-17 36.331 17.6.0 4975 - F LTE\_NBIOT\_eMTC\_NTN-Core

### 4.2.1 Other

[R2-2313008](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313008.zip) Correction on SIB31 signalling only in NTN cell Samsung CR Rel-17 36.331 17.6.0 4972 - F LTE\_NBIOT\_eMTC\_NTN

[R2-2313357](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313357.zip) Correction on Koffset when receiving dedicated SIB31 ZTE Corporation, Sanechips CR Rel-17 36.321 17.6.0 1578 - F LTE\_NBIOT\_eMTC\_NTN-Core

[R2-2313370](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313370.zip) Correction to 36.321 on Koffset handling during MAC reset Huawei, Ericsson, Samsung, OPPO, Nokia, Qualcomm, HiSilicon CR Rel-17 38.321 17.6.0 1722 - F LTE\_NBIOT\_eMTC\_NTN [R2-2311597](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311597.zip) Withdrawn

[R2-2313395](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313395.zip) Corrections to SystemInformationBlockType31 for IoT NTN Huawei, HiSilicon CR Rel-17 36.331 17.6.0 4978 - F LTE\_NBIOT\_eMTC\_NTN

[R2-2313485](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313485.zip) Correction on the Koffset handling during RRC connection re-establishment Google Inc. CR Rel-17 36.321 17.6.0 1579 - F LTE\_NBIOT\_eMTC\_NTN-Core

[R2-2313547](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313547.zip) Correction to 36.321 on Koffset handling during MAC reset Huawei, Ericsson, Samsung, OPPO, Nokia, Qualcomm, HiSilicon CR Rel-17 38.321 17.6.0 1722 1 F LTE\_NBIOT\_eMTC\_NTN [R2-2313370](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313370.zip) Withdrawn

[R2-2313550](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313550.zip) Correction to 36.321 on Koffset handling during handover Huawei, Ericsson, Samsung, OPPO, Nokia, Qualcomm, HiSilicon CR Rel-17 36.321 17.6.0 1573 1 F LTE\_NBIOT\_eMTC\_NTN [R2-2311597](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311597.zip)

## 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

## 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.

# 5 NR Rel-15 and Rel-16

Essential corrections only.

Tdoc Limitation: 5 tdocs in total for all sub agenda items.

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\_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

[R2-2311747](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_124\\Docs\\R2-2311747.zip) Reply LS on update for “interBandMRDC-WithOverlapDL-Bands-r16” in 38.306 (R4-2317401; contact: Apple) RAN4 LS in Rel-16 TEI16 To:RAN2

[R2-2311748](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311748.zip) LS on update for “asyncIntraBandENDC“ (R4-2317402; contact: Apple) RAN4 LS in Rel-16 TEI16 To:RAN2

#### 5.1.1.1 Other

[R2-2312142](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_124\\Docs\\R2-2312142.zip) Miscellaneous Corrections Nokia (Rapporteur), Samsung, vivo CR Rel-16 38.300 16.14.0 0725 - F NR\_IAB-Core, LTE\_NR\_DC\_CA\_enh-Core

### 5.1.2 User Plane corrections

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

#### 5.1.2.0 In Principle Agreed CRs

[R2-2312633](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312633.zip) Correction on CSI reporting for DCP function Huawei, HiSilicon CR Rel-16 38.321 16.13.0 1672 2 F NR\_UE\_pow\_sav-Core [R2-2311570](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311570.zip)

- Qualcomm thinks that the new update is not correct and the original version was better

=> The CR is agreed

[R2-2312634](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312634.zip) Correction on CSI reporting for DCP function Huawei, HiSilicon CR Rel-17 38.321 17.6.0 1673 1 A NR\_UE\_pow\_sav-Core [R2-2309839](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2309839.zip)

=> The CR is agreed

#### 5.1.2.1 MAC

#### 5.1.2.2 RLC PDCP SDAP BAP

[R2-2312538](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312538.zip) Corrections on the BAP entity at the DU function Huawei, HiSilicon CR Rel-16 38.340 16.5.0 0034 - F NR\_IAB-Core

- Samsung thinks it may be correct but it is a dynamic feature and there is no distinction of intermediary node.

- Samsung thinks that this is an issue discussed in Rel-18.

- LG thinks that we can live without this CR

=> The CR is postponed

[R2-2312539](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312539.zip) Corrections on the BAP entity at the DU function Huawei, HiSilicon CR Rel-17 38.340 17.5.0 0035 - A NR\_IAB-Core

=> The CR is not treated

#### 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

[R2-2312813](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312813.zip) Miscellaneous non-controversial corrections Set XX Ericsson CR Rel-15 38.331 15.23.0 4361 1 F NR\_newRAT-Core [R2-2310961](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310961.zip) Late

[R2-2312814](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312814.zip) Miscellaneous non-controversial corrections Set XX Ericsson CR Rel-16 38.331 16.14.0 4362 1 F NR\_newRAT-Core [R2-2310962](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310962.zip) Late

#### 5.1.3.1 NR RRC

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

[R2-2312374](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312374.zip) Clarification on the default beam for the cross-carrier scheduling Samsung CR Rel-16 38.331 16.14.0 4425 - F LTE\_NR\_DC\_CA\_enh-Core

[R2-2312375](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312375.zip) Clarification on the default beam for the cross-carrier scheduling Samsung CR Rel-17 38.331 17.6.0 4426 - A LTE\_NR\_DC\_CA\_enh-Core

[R2-2312975](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312975.zip) Correction on when multiple configured grants are signalled Ericsson CR Rel-16 38.331 16.14.0 4455 - F NR\_newRAT-Core, NR\_IIOT, NR\_L1enh\_URLLC

[R2-2312976](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312976.zip) Correction on when multiple configured grants are signalled Ericsson CR Rel-17 38.331 17.6.0 4456 - A NR\_newRAT-Core, NR\_IIOT, NR\_L1enh\_URLLC

[R2-2312977](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312977.zip) Clarification on modification of PUCCH-Config Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-2312996](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312996.zip) Clarification on release of OtherConfig when going to Idle Qualcomm Incorporated CR Rel-15 38.331 15.23.0 4459 - F NR\_newRAT-Core

[R2-2312997](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312997.zip) Clarification on release of OtherConfig when going to Idle Qualcomm Incorporated CR Rel-16 38.331 16.14.0 4460 - A NR\_newRAT-Core

[R2-2313001](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313001.zip) Clarification on release of OtherConfig when going to Idle Qualcomm Incorporated CR Rel-17 38.331 17.6.0 4461 - A NR\_newRAT-Core

[R2-2313323](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313323.zip) Correction to NR DAPS handover Google Inc. CR Rel-16 38.331 16.14.0 4487 - F NR\_Mob\_enh-Core

[R2-2313328](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313328.zip) Correction to LTE DAPS handover Google Inc. CR Rel-16 36.331 16.13.0 4977 - F LTE\_feMob-Core

[R2-2313501](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313501.zip) Consequences of UE autonomous BWP switch Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

[R2-2313536](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313536.zip) Discussion on capability for CSI report subband indexing Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

#### 5.1.3.2 UE capabilities

UE cap corrections 38306, 38331

[R2-2311797](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311797.zip) Left issues on asyncIntraBandENDC and interBandMRDC-WithOverlapDL-Bands-r16 and OPPO discussion Rel-16 TEI16

=> Withdrawn

[R2-2312346](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312346.zip) Update on UE capability interBandMRDC-WithOverlapDL-Bands-r16 Apple, ZTE Corporation, Sanechips discussion Rel-16 TEI16

[R2-2312347](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312347.zip) Update on UE capability interBandMRDC-WithOverlapDL-Bands-r16 Apple, ZTE Corporation, Sanechips, Ericsson CR Rel-16 38.306 16.14.0 0937 1 F TEI16 [R2-2307861](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2307861.zip)

[R2-2312348](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312348.zip) Update on UE capability interBandMRDC-WithOverlapDL-Bands-r16 Apple, ZTE Corporation, Sanechips, Ericsson CR Rel-17 38.306 17.6.0 0938 1 A TEI16 [R2-2307862](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2307862.zip)

[R2-2312349](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312349.zip) Update on UE capability asyncIntraBandENDC Apple discussion Rel-15 TEI15

[R2-2312350](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312350.zip) Update on UE capability AsyncIntraBandENDC Apple CR Rel-15 38.306 15.22.0 0982 - F TEI15

[R2-2312351](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312351.zip) Update on UE capability AsyncIntraBandENDC Apple CR Rel-16 38.306 16.14.0 0983 - A TEI15

[R2-2312352](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312352.zip) Update on UE capability AsyncIntraBandENDC Apple CR Rel-17 38.306 17.6.0 0984 - A TEI15

[R2-2312361](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312361.zip) Correction on the interpretation of the UE capability field simultaneousRxTxInterBandCA Apple Inc CR Rel-15 38.306 15.22.0 0985 - F NR\_newRAT-Core

[R2-2312362](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312362.zip) Correction on the interpretation of the UE capability field simultaneousRxTxInterBandCA Apple Inc CR Rel-16 38.306 16.14.0 0986 - A NR\_newRAT-Core

[R2-2312363](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312363.zip) Correction on the interpretation of the UE capability field simultaneousRxTxInterBandCA Apple Inc CR Rel-17 38.306 17.6.0 0987 - A NR\_newRAT-Core

[R2-2313038](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313038.zip) Miscellaneous non-controversial rapporteur corrections on Rel-16 38.306 Intel Corporation, Lenovo, MediaTek Inc. CR Rel-16 38.306 16.14.0 0995 - F NR\_eMIMO-Core, TEI16, NR\_newRAT-Core, NR\_CSIRS\_L3meas-Core

[R2-2313258](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313258.zip) Update to interBandMRDC-WithOverlapDL-Bands-r16 Nokia, Nokia Shanghai Bell CR Rel-16 38.306 16.14.0 0945 1 F NR\_newRAT-Core, TEI16 [R2-2308510](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2308510.zip)

[R2-2313259](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313259.zip) Update to interBandMRDC-WithOverlapDL-Bands-r16 Nokia, Nokia Shanghai Bell CR Rel-17 38.306 17.6.0 0946 1 A NR\_newRAT-Core, TEI16 [R2-2308511](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2308511.zip)

[R2-2313262](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313262.zip) Update to asyncIntraBandENDC Nokia, Nokia Shanghai Bell CR Rel-16 38.306 16.14.0 1004 - F NR\_newRAT-Core, TEI16

[R2-2313263](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313263.zip) Update to asyncIntraBandENDC Nokia, Nokia Shanghai Bell CR Rel-17 38.306 17.6.0 1005 - A NR\_newRAT-Core, TEI16

[R2-2313337](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313337.zip) Consideration on the “asyncIntraBandENDC” ZTE Corporation, Sanechips discussion Rel-16 TEI16

[R2-2313464](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313464.zip) Clarification on ca-ParametersNRDC capability Huawei, HiSilicon CR Rel-15 38.331 15.23.0 4495 - F NR\_newRAT-Core

[R2-2313465](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313465.zip) Clarification on ca-ParametersNRDC capability Huawei, HiSilicon CR Rel-16 38.331 16.14.0 4496 - A NR\_newRAT-Core

[R2-2313466](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313466.zip) Clarification on ca-ParametersNRDC capability Huawei, HiSilicon CR Rel-17 38.331 17.6.0 4497 - A NR\_newRAT-Core

[R2-2313574](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313574.zip) Left issues on asyncIntraBandENDC OPPO discussion Rel-16 TEI16

#### 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.

[R2-2312635](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312635.zip) Clarification for the use of term and/or within the context of (e)DRX operation Huawei, HiSilicon, Ericsson CR Rel-15 38.304 15.8.0 0361 - F NR\_newRAT-Core

[R2-2312636](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312636.zip) Clarification for the use of term and/or within the context of (e)DRX operation Huawei, HiSilicon, Ericsson CR Rel-16 38.304 16.10.0 0362 - A NR\_newRAT-Core

[R2-2312637](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312637.zip) Clarification for the use of term and/or within the context of (e)DRX operation Huawei, HiSilicon, Ericsson CR Rel-17 38.304 17.6.0 0363 - A NR\_newRAT-Core, NR\_redcap-Core, NR\_SL\_relay-Core

[R2-2313071](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313071.zip) Correction on NR SL Operation Philips International B.V. CR Rel-16 36.304 16.8.0 0867 - F 5G\_V2X\_NRSL-Core

[R2-2313073](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313073.zip) Correction on NR SL Operation Philips International B.V. CR Rel-17 36.304 17.4.0 0868 - A 5G\_V2X\_NRSL-Core

## 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.).

### 5.2.0 In Principle Agreed CRs

[R2-2311831](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311831.zip) Corrections to random access cancellation criteria for sidelink BSR and CSI reporting Samsung Electronics Co., Ltd CR Rel-16 38.321 16.13.0 1668 1 F 5G\_V2X\_NRSL-Core [R2-2309773](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2309773.zip)

[R2-2311832](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311832.zip) Corrections to random access cancellation criteria for sidelink BSR and CSI reporting Samsung Electronics Co., Ltd CR Rel-17 38.321 17.6.0 1669 1 A 5G\_V2X\_NRSL-Core [R2-2309774](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2309774.zip)

=> Revised in [R2-2313578](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313578.zip)

[R2-2313578](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313578.zip) Corrections to random access cancellation criteria for sidelink BSR and CSI reporting Samsung Electronics Co., Ltd CR Rel-17 38.321 17.6.0 1669 2 A 5G\_V2X\_NRSL-Core [R2-2311832](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311832.zip)

[R2-2311882](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311882.zip) Correction of SL synchronisation measurement OPPO CR Rel-16 38.321 16.13.0 1693 - F 5G\_V2X\_NRSL-Core [R2-2309678](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2309678.zip) Withdrawn

[R2-2311883](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311883.zip) Correction of SL synchronisation measurement OPPO CR Rel-16 38.331 16.14.0 4311 1 F 5G\_V2X\_NRSL-Core [R2-2309678](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2309678.zip)

[R2-2311884](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311884.zip) Correction of SL synchronisation measurement OPPO CR Rel-17 38.331 17.6.0 4329 1 A 5G\_V2X\_NRSL-Core [R2-2310439](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310439.zip)

[R2-2312528](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312528.zip) Correction on MAC layer for sidelink ZTE Corporation, Sanechips CR Rel-16 38.321 16.13.0 1675 2 F 5G\_V2X\_NRSL-Core [R2-2311581](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311581.zip)

[R2-2312529](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312529.zip) Correction on MAC layer for sidelink ZTE Corporation, Sanechips CR Rel-17 38.321 17.6.0 1676 2 A NR\_SL\_enh-Core [R2-2311582](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311582.zip)

=> Revised in [R2-2313582](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313582.zip)

[R2-2313582](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313582.zip) Correction on MAC layer for sidelink ZTE Corporation, Sanechips CR Rel-17 38.321 17.6.0 1676 3 A 5G\_V2X\_NRSL-Core

### 5.2.1 Other

[R2-2311711](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311711.zip) Response LS on frequencyInfo for NR SL RSRP measurements (R1-2310559; contact: Huawei) RAN1 LS in Rel-16 5G\_V2X\_NRSL-Core To:RAN2 Cc:RAN4, RAN5

[R2-2312078](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312078.zip) Draft reply LS on frequencyInfo for NR SL RSRP measurement Huawei, HiSilicon LS out Rel-16 5G\_V2X\_NRSL-Core To:RAN4 Cc:RAN1, RAN4

[R2-2312079](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312079.zip) Correction on carrier frequency for NR SL RSRP measurement Huawei, HiSilicon CR Rel-16 38.331 16.14.0 4409 - F 5G\_V2X\_NRSL-Core

[R2-2312080](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312080.zip) Correction on carrier frequency for NR SL RSRP measurement Huawei, HiSilicon CR Rel-17 38.331 17.6.0 4410 - A 5G\_V2X\_NRSL-Core

[R2-2312522](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312522.zip) Impact of SL power class on cell selection and reselection Ericsson discussion Rel-16 5G\_V2X\_NRSL-Core Withdrawn

[R2-2312530](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312530.zip) Correction on MAC layer for sidelink ZTE Corporation, Sanechips CR Rel-16 38.321 16.13.0 1707 - F 5G\_V2X\_NRSL-Core

[R2-2312531](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312531.zip) Correction on MAC layer for sidelink ZTE Corporation, Sanechips CR Rel-17 38.321 17.6.0 1708 - A NR\_SL\_enh-Core

[R2-2313029](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313029.zip) Impact of SL power class on cell selection and reselection Ericsson discussion Rel-16 5G\_V2X\_NRSL-Core

[R2-2313085](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313085.zip) Correction on NR SL Stage 2 Philips International B.V. CR Rel-16 38.300 16.14.0 0737 - F 5G\_V2X\_NRSL-Core

[R2-2313086](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313086.zip) Correction on NR SL Stage 2 Philips International B.V. CR Rel-17 38.300 17.6.0 0738 - A 5G\_V2X\_NRSL-Core

[R2-2313088](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313088.zip) Correction on NR SL MAC Philips International B.V. CR Rel-17 38.321 17.6.0 1718 - F 5G\_V2X\_NRSL-Core

[R2-2313090](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313090.zip) Correction on SL measurements RRC Philips International B.V. CR Rel-16 38.331 16.14.0 4464 - F 5G\_V2X\_NRSL-Core

[R2-2313092](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313092.zip) Correction on SL measurements RRC Philips International B.V. CR Rel-17 38.331 17.6.0 4465 - A 5G\_V2X\_NRSL-Core

[R2-2313183](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313183.zip) Correction on type-1 SL CG ASUSTeK, Ericsson CR Rel-16 38.331 16.14.0 4473 - F 5G\_V2X\_NRSL-Core

[R2-2313184](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313184.zip) Correction on type-1 SL CG ASUSTeK, Ericsson CR Rel-17 38.331 17.6.0 4474 - 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)

### 5.3.0 In Principle Agreed CRs

[R2-2312270](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312270.zip) Correction to 38.331 on GNSS-ID Huawei, HiSilicon CR Rel-16 38.331 16.14.0 4417 - F NR\_pos-Core

[R2-2312271](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312271.zip) Correction to 38.331 on GNSS-ID Huawei, HiSilicon CR Rel-17 38.331 17.6.0 4418 - A NR\_pos-Core

### 5.3.1 General and Stage 2 corrections

Including incoming LSs if any, Including impact to 36.305 and 38.305. 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.

[R2-2312306](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312306.zip) Sequence of Procedure for Multi-RTT positioning correction Apple CR Rel-16 38.305 16.9.0 0148 - F NR\_pos-Core

[R2-2312307](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312307.zip) Sequence of Procedure for Multi-RTT positioning correction Apple CR Rel-17 38.305 17.6.0 0149 - A NR\_pos-Core

### 5.3.2 Stage 3 corrections (RRC/LPP/MAC/capabilities)

[R2-2313241](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313241.zip) Definition of Positioning Frequency Layer Nokia, Nokia Shanghai Bell CR Rel-16 37.355 16.12.0 0483 - F NR\_pos-Core

## 5.4 SON MDT support for NR

(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)).

### 5.4.1 General and stage-2 corrections

Including incoming LSs, TS 37.320 corrections

### 5.4.2 TS 38.314 corrections

### 5.4.3 RRC corrections

[R2-2312888](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312888.zip) Clarification to the the field description of the raPurpose in RA-Report Ericsson CR Rel-16 38.331 16.14.0 4447 - F NR\_SON\_MDT-Core

[R2-2312889](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312889.zip) Clarification to the field description of the raPurpose in RA-Report Ericsson CR Rel-17 38.331 17.6.0 4448 - A NR\_SON\_MDT-Core

[R2-2312890](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312890.zip) Setting the content of the RA report for the selected beam Ericsson CR Rel-16 38.331 16.14.0 4449 - F NR\_SON\_MDT-Core

[R2-2312891](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312891.zip) Setting the content of the RA report for the selected beam Ericsson CR Rel-17 38.331 17.6.0 4450 - A NR\_SON\_MDT-Core

# 6 NR Rel-17

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

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.

Tdoc limitation: 7 Tdocs

[R2-2311833](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311833.zip) Corrections for SSB to CG PUSCH mapping for SDT Samsung Electronics Co., Ltd CR Rel-17 38.331 17.6.0 4392 - F NR\_SmallData\_INACTIVE-Core

### 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)

[R2-2311931](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_124\\Docs\\R2-2311931.zip) Latency and congestion management for MCPTT Sessions AT&T, FirstNet discussion Rel-17 38.300 NR\_MBS-Core

[R2-2312959](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312959.zip) Mission Critical UEs and packet loss Ericsson discussion Rel-17 NR\_MBS-Core

[R2-2312960](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312960.zip) Clarification for Mission Critical UEs Ericsson CR Rel-17 38.300 17.6.0 0735 - F NR\_MBS-Core

#### 6.1.1.0 In Principle Agreed CRs

[R2-2312549](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312549.zip) Clarification of configuration of transmissionComb in IE SRS-Resource Ericsson CR Rel-17 38.331 17.6.0 4382 1 F NR\_FeMIMO-Core [R2-2311192](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311192.zip)

#### 6.1.1.1 Other

[R2-2311712](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311712.zip) LS on NCD-SSB time offset for RedCap UEs in TDD (R1-2310566; contact: Ericsson) RAN1 LS in Rel-17 NR\_redcap-Core To:RAN2 Cc:RAN4

[R2-2311737](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311737.zip) Reply LS on FR2 CA BW class of R-U (R4-2315816; contact: vivo) RAN4 LS in Rel-17 NR\_RF\_FR2\_req\_enh2-Core To:RAN2

[R2-2311738](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311738.zip) LS on the new channel bandwidth class for F[R2-2](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2.zip) (R4-2315865; contact: Huawei) RAN4 LS in Rel-17 NR\_ext\_to\_71GHz-Core To:RAN2

[R2-2311762](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311762.zip) Reply LS on addressing packet loss during multicast MBS delivery (S2-2311672; contact: Qualcomm) SA2 LS in Rel-17 5MBS, MCOver5MBS, 5GS\_Ph1 To:SA6, RAN2 Cc:CT3, SA4

[R2-2312143](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312143.zip) Miscellaneous Corrections Nokia (Rapporteur), Lenovo, Samsung, vivo CR Rel-17 38.300 17.6.0 0726 - F NR\_IAB-Core, LTE\_NR\_DC\_CA\_enh-Core, NR\_QoE-Core

[R2-2313368](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313368.zip) Discussion on MCPTT packet latency requirement based on SA2 LS Huawei, CBN, HiSilicon discussion Rel-17 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

[R2-2313367](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313367.zip) Correction on the condition of HARQ feedback generation and the condition of stopping drx-RetransmissionTimerDL Huawei, ASUSTeK, Samsung, CBN, HiSilicon CR Rel-17 38.321 17.6.0 1686 2 F NR\_MBS-Core [R2-2311585](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311585.zip)

=> The CR is agreed

[R2-2313414](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313414.zip) Correction on SRI in IAB MAC CEs ZTE, Sanechips, Samsung CR Rel-17 38.321 17.6.0 1688 2 F NR\_IAB\_enh-Core [R2-2311269](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311269.zip)

=> The CR is agreed

#### 6.1.2.1 Other

[R2-2312978](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312978.zip) Correction on list of MAC CEs for which there are requirements upon reception Ericsson CR Rel-17 38.321 17.6.0 1714 - F NR\_IAB\_enh-Core, NR\_FeMIMO-Core

=> Should be updated as BFD-RS Indication MAC CE

=> update first line to include “or transmission”

=> Revise and review by email

* [AT124][003][R17 UP] Review updated CR [R2-2312978](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312978.zip) (Ericsson)

- Intended outcome: approve by email

- Deadline: Thursday

[R2-2313868](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312978.zip) Correction on list of MAC CEs for which there are requirements upon reception Ericsson CR Rel-17 38.321 17.6.0 1714 1 F NR\_IAB\_enh-Core, NR\_FeMIMO-Core

[R2-2312405](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312405.zip) Correction for the looped RACH case for RedCap Huawei, HiSilicon, Mediatek CR Rel-17 38.321 17.6.0 1704 - F NR\_redcap-Core

- Nokia doesn’t understand how there can a loop

- Huawei explains that this is really happening in the field.

- Qualcomm thinks that this should be handled by UE implementation. In case this happens it up to UE implementation to not trigger any more RACH.

- Nokia asks why doesn’t the network just give an UL grant. Vivo has similar view as Nokia.

- Samsung thinks that problem is the UE keeps changing to initial and NW changes it. The NW should be able to detect this behaviour and can fix it.

- LG is still not convinced and agrees with Nokia.

[CB if we can agree to a note in chair notes]

=> The CR is not pursued

[R2-2313424](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313424.zip) Correction on the CG-SDT initiation Nokia, Nokia Shanghai Bell CR Rel-17 38.321 17.6.0 1725 - F NR\_SmallData\_INACTIVE-Core

- Qualcomm, ZTE, LG, Samsung thinks the current spec already means that it has to be a valid PUCCH occasion. 5.8.2 it is already clear which CG occasions are used and validity is already there.

=> the CR is not pursued

### 6.1.3 Control Plane corrections

#### 6.1.3.0 In Principle Agreed CRs

[R2-2312380](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312380.zip) Correction on Type1 HARQ-ACK codebook generation Qualcomm Incorporated CR Rel-17 38.331 17.6.0 4318 1 F TEI17 [R2-2309986](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2309986.zip)

=> Revised in [R2-2313576](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313576.zip)

[R2-2313576](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313576.zip) Correction on Type1 HARQ-ACK codebook generation Qualcomm Incorporated CR Rel-17 38.331 17.6.0 4318 2 F TEI17

[R2-2312381](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312381.zip) Correction on Type1 HARQ-ACK codebook generation Qualcomm Incorporated CR Rel-17 38.306 17.6.0 0957 1 F TEI17 [R2-2309987](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2309987.zip)

[R2-2312406](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312406.zip) Corrections on the search space for RedCap Huawei, HiSilicon CR Rel-17 38.331 17.6.0 4429 - F NR\_redcap-Core

[R2-2312523](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312523.zip) Correction to RRC for 71 GHz on multi-PUSCH LG Electronics Inc., Ericsson, ASUSTeK, Nokia, Nokia Shanghai Bell, Samsung, Xiaomi, Huawei, HiSilicon CR Rel-17 38.331 17.6.0 4016 5 F NR\_ext\_to\_71GHz-Core [R2-2310115](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310115.zip)

[R2-2312525](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312525.zip) Further correction to RRC for 71 GHz on multi-PUSCH Ericsson, Xiaomi, ASUSTeK, Huawei, HiSilicon, Nokia, Nokia Shanghai Bell, Samsung, LG Electronics Inc CR Rel-17 38.331 17.6.0 4088 3 F NR\_ext\_to\_71GHz-Core [R2-2310116](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310116.zip)

[R2-2312767](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312767.zip) Correction on RedCap initial UL/DL BWP ZTE Corporation, Sanechips CR Rel-17 38.331 17.6.0 4340 2 F NR\_redcap-Core [R2-2311434](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311434.zip)

[R2-2312768](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312768.zip) Clarification on the meaning of nogap-noncsg ZTE Corporation, Nokia, Sanechips, CR Rel-17 38.331 17.6.0 4341 1 F NR\_MG\_enh-Core [R2-2310668](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310668.zip)

[R2-2312815](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312815.zip) Miscellaneous non-controversial corrections Set XX Ericsson CR Rel-17 38.331 17.6.0 4363 1 F NR\_newRAT-Core [R2-2310963](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310963.zip) Late

[R2-2312966](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312966.zip) Correction to disabling scaling factor for Cross-carrier scheduling Ericsson CR Rel-17 38.306 17.6.0 0967 1 F NR\_DSS [R2-2310946](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310946.zip)

[R2-2313467](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313467.zip) Clarification on UplinkTxSwitchingBandParameters Huawei, HiSilicon CR Rel-17 38.306 17.6.0 0962 2 F NR\_RF\_FR1\_enh [R2-2311433](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311433.zip)

#### 6.1.3.1 NR RRC

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

[R2-2311775](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311775.zip) Clarification on dmrs-TypeA-Position in MIB for RedCap UEs Qualcomm Incorporated CR Rel-17 38.331 17.6.0 4393 - F NR\_redcap-Core

[R2-2311776](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311776.zip) Correction to time offset of NCD-SSB Qualcomm Incorporated CR Rel-17 38.331 17.6.0 4394 - F NR\_redcap-Core

[R2-2311777](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311777.zip) Correction to support autonomous change of UE channel bandwidth during RACH Qualcomm Incorporated, ZTE Corporation, Sanechips, Huawei, HiSilicon CR Rel-17 38.331 17.6.0 4395 - F NR\_redcap-Core

[R2-2311987](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311987.zip) Correction to SCell activation/deactivation MediaTek Inc. CR Rel-17 38.331 17.6.0 4404 - F LTE\_NR\_DC\_enh2-Core

[R2-2312030](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312030.zip) Correction on RLM/BFD relaxation state reporting CATT, Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.6.0 4344 2 F NR\_UE\_pow\_sav\_enh-Core [R2-2311427](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311427.zip)

[R2-2312059](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312059.zip) Correction to support autonomous change of UE channel bandwidth during RACH CATT CR Rel-17 38.331 17.6.0 4407 - F NR\_redcap-Core

[R2-2312069](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312069.zip) On remaining issues for CSI reporting configuration CATT discussion

[R2-2312123](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312123.zip) Removal of ambiguous term ‘legacy’ Lenovo CR Rel-16 38.331 16.14.0 4412 - F TEI16

[R2-2312124](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312124.zip) Removal of ambiguous term ‘legacy’ Lenovo CR Rel-17 38.331 17.6.0 4413 - F TEI16, NR\_FeMIMO-Core, NR\_IIOT\_URLLC\_enh-Core

[R2-2312125](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312125.zip) Removal of ambiguous term ‘legacy’ Lenovo CR Rel-17 38.306 17.6.0 0977 - F NR\_pos\_enh-Core, NR\_IIOT\_URLLC\_enh-Core

[R2-2312204](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312204.zip) Correction on C-DRX onDurationTimer And Offset Value range ZTE Corporation, Sanechips CR Rel-17 38.331 17.6.0 4415 - F NR\_ext\_to\_71GHz-Core

[R2-2312205](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312205.zip) Correction on C-DRX OnonDurationTimer And Offset Value range ZTE Corporation, Sanechips CR Rel-17 38.306 17.6.0 0979 - F NR\_ext\_to\_71GHz-Core

[R2-2312376](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312376.zip) Clarification on the condition of subband reporting Samsung, Ericsson CR Rel-17 38.306 17.6.0 0988 - F NR\_FeMIMO-Core

[R2-2312377](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312377.zip) Clarification on the condition of subband reporting Samsung, Ericsson CR Rel-17 38.331 17.6.0 4427 - F NR\_FeMIMO-Core

[R2-2312407](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312407.zip) Correction for the selected band for HD-FDD capability checking by RedCap UE Huawei, HiSilicon CR Rel-17 38.331 17.6.0 4430 - F NR\_redcap-Core

[R2-2312712](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312712.zip) Clarification for MBS broadcast reception Samsung CR Rel-17 38.331 17.6.0 4442 - F NR\_MBS-Core

[R2-2312766](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312766.zip) Correction on ssb-TimeOffset ZTE Corporation, Sanechips CR Rel-17 38.331 17.6.0 4443 - F NR\_redcap-Core

[R2-2312958](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312958.zip) RLM and BFD relaxation state reporting Ericsson discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2313101](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313101.zip) Correction on SIB(s) acquisition Philips International B.V. CR Rel-17 38.331 17.6.0 4468 - F NR\_newRAT-Core

[R2-2313212](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313212.zip) Clarification on NCD-SSB time offset for RedCap UEs in TDD Ericsson CR Rel-17 38.331 17.6.0 4479 - F NR\_redcap-Core Revised

[R2-2313247](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313247.zip) Clarification on NCD-SSB time offset for RedCap UEs in TDD Ericsson CR Rel-17 38.331 17.6.0 4479 1 F NR\_redcap-Core [R2-2313212](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313212.zip)

[R2-2313278](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313278.zip) Correction to SDT-Config handling Google Inc. CR Rel-17 38.331 17.6.0 4485 - F NR\_SmallData\_INACTIVE-Core

[R2-2313345](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313345.zip) Clarification to common search space monitoring by RedCap UEs Qualcomm France discussion Rel-17 38.331

[R2-2313394](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313394.zip) Clarification on the simultaneous configuration of multiple transmission comb values Xiaomi draftCR Rel-17 38.331 17.6.0 F NR\_FeMIMO-Core

[R2-2313499](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313499.zip) MCPTT UE handling for MBS Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_MBS-Core

[R2-2313500](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313500.zip) LS on multicast MBS handling for MCPTT Ues Nokia, Nokia Shanghai Bell LS out Rel-17 NR\_MBS-Core To:SA2, SA6, RAN3

[R2-2313589](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313589.zip) Correction on NCD-SSB time offset for RedCap UEs in TDD Ericsson, Qualcomm Incorporated, ZTE Corporation, Sanechips CR Rel-17 38.331 17.6.0 4502 - F NR\_redcap-Core

#### 6.1.3.2 UE capabilities

UE cap corrections 38306, 38331.

*Including the outcome of [Post123][043][NR17] UE caps Maximum aggregated bandwidth (Qualcomm)*

*Including the outcome of [Post123][044][NR17] independentGapConfig-maxCC (Qualcomm)*

[R2-2312382](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312382.zip) Additional discussion on maximum aggregated BW UE capability Qualcomm Incorporated discussion Rel-17 NR\_BCS4-Core, NR\_RF\_FR2\_req\_enh2-Core

=> Revised in [R2-2313579](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313579.zip)

[R2-2313579](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313579.zip) Additional discussion on maximum aggregated BW UE capability Qualcomm Incorporated discussion Rel-17 NR\_BCS4-Core, NR\_RF\_FR2\_req\_enh2-Core

[R2-2312383](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312383.zip) Introduction of maximum aggregated bandwidth for FR1 inter-band CA and for FR2 intra-band CA Qualcomm Incorporated draftCR Rel-17 38.306 17.6.0 C NR\_BCS4-Core, NR\_RF\_FR2\_req\_enh2-Core

=> Revised in [R2-2313580](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313580.zip)

[R2-2313580](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313580.zip) Introduction of maximum aggregated bandwidth for FR1 inter-band CA and for FR2 intra-band CA Qualcomm Incorporated draftCR Rel-17 38.306 17.6.0 C NR\_BCS4-Core, NR\_RF\_FR2\_req\_enh2-Core

[R2-2312384](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312384.zip) Clarifications on the applicability of independent gap UE capabilities Qualcomm Incorporated CR Rel-17 38.306 17.6.0 0989 - F NR\_MG\_enh-Core

[R2-2312385](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312385.zip) Introduction of UE capability for inter-RAT NR FR2 measurements without measurement gap Qualcomm Incorporated CR Rel-17 36.331 17.6.0 4968 - F NR\_MG\_enh-Core

[R2-2312386](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312386.zip) Introduction of UE capability for inter-RAT NR FR2 measurements without measurement gap Qualcomm Incorporated CR Rel-17 36.306 17.4.0 1873 - F NR\_MG\_enh-Core

[R2-2312627](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312627.zip) Correction on supportedModulationOrderDL for Redcap for FR1 Xiaomi, Intel, Huawei, HiSilicon draftCR Rel-17 38.331 17.6.0 NR\_redcap-Core

[R2-2313039](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313039.zip) Miscellaneous non-controversial rapporteur corrections on rel-17 38.306 Intel Corporation, Lenovo, MediaTek Inc. CR Rel-17 38.306 17.6.0 0996 - F NR\_eMIMO-Core, TEI16, NR\_MBS-Core, NR\_newRAT-Core, NR\_CSIRS\_L3meas-Core, TEI17

[R2-2313185](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313185.zip) Correction on UE capabilities of F[R2-2](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2.zip) and IIoT ASUSTeK CR Rel-17 38.306 17.6.0 1000 - F NR\_ext\_to\_71GHz-Core, NR\_IIOT\_URLLC\_enh-Core

[R2-2313210](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313210.zip) Correction on multipleCORESET for RedCap UEs Ericsson, Qualcomm Inc., ZTE Corporation CR Rel-17 38.331 17.6.0 4478 - F NR\_redcap-Core Revised

[R2-2313211](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313211.zip) Correction on multipleCORESET for RedCap UEs Ericsson, Qualcomm Inc., ZTE Corporation CR Rel-17 38.306 17.6.0 1003 - F NR\_redcap-Core Revised

[R2-2313245](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313245.zip) Correction on multipleCORESET for RedCap UEs Ericsson, Qualcomm Inc., ZTE Corporation CR Rel-17 38.331 17.6.0 4478 1 F NR\_redcap-Core [R2-2313210](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313210.zip)

[R2-2313246](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313246.zip) Correction on multipleCORESET for RedCap UEs Ericsson, Qualcomm Inc., ZTE Corporation CR Rel-17 38.306 17.6.0 1003 1 F NR\_redcap-Core [R2-2313211](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313211.zip)

[R2-2313260](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313260.zip) Introduction of FR2 FBG2 CA BW classes Nokia, Nokia Shanghai Bell, Huawei, HiSilicon, ZTE Corporation, Sanechips, Qualcomm, Xiaomi Communications CR Rel-17 38.306 17.6.0 0678 5 B NR\_RF\_FR2\_req\_enh2-Core [R2-2210245](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2210245.zip)

[R2-2313261](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313261.zip) Introduction of FR2 FBG2 CA BW classes Nokia, Nokia Shanghai Bell, Huawei, HiSilicon, ZTE Corporation, Sanechips, Qualcomm, Xiaomi Communications CR Rel-17 38.331 17.6.0 2867 6 B NR\_RF\_FR2\_req\_enh2-Core [R2-2210243](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2210243.zip)

[R2-2313264](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313264.zip) Introduction of F[R2-2](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2.zip) CA BW classes Nokia, Nokia Shanghai Bell CR Rel-17 38.306 17.6.0 1006 - B NR\_ext\_to\_71GHz-Core

[R2-2313265](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313265.zip) Introduction of F[R2-2](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2.zip) CA BW classes Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.6.0 4483 - B NR\_ext\_to\_71GHz-Core

[R2-2313451](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313451.zip) Correction to support higher power limit capability for inter-band UL EN-DC MediaTek Inc., Ericsson, Nokia, Nokia Shanghai Bell CR Rel-17 38.306 17.6.0 1009 - F Power\_Limit\_CA\_DC

[R2-2313452](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313452.zip) Correction to support higher power limit capability for inter-band UL EN-DC MediaTek Inc., Ericsson, Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.6.0 4494 - F Power\_Limit\_CA\_DC

[R2-2313468](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313468.zip) Introduction of F[R2-2](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2.zip) new CA BW classes Huawei, HiSilicon, Ericsson CR Rel-17 38.331 17.6.0 4498 - B NR\_ext\_to\_71GHz-Core

#### 6.1.3.3 Other

Including idle and inactive behaviour specified in 38.304 or 36.304.

[R2-2312961](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312961.zip) eDRX corrections Ericsson CR Rel-17 38.304 17.6.0 0366 - F NR\_UE\_pow\_sav\_enh-Core, NR\_redcap-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

### 6.2.0 In Principle Agreed CRs

[R2-2311885](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311885.zip) Correction on SIB/Preconfiguration applicability OPPO, ZTE CR Rel-17 38.304 17.6.0 0353 2 F NR\_SL\_enh-Core, NR\_SL\_relay-Core [R2-2311379](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311379.zip)

[R2-2312688](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312688.zip) RRC corrections for SL relay Huawei, HiSilicon, CATT, Apple, ZTE, China Telecom, Philips International B.V., Lenovo, Xiaomi CR Rel-17 38.331 17.6.0 4389 1 F NR\_SL\_relay-Core [R2-2311380](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311380.zip)

### 6.2.1 Other

A single CR per TS with miscellaneous corrections is encouraged. Small editorial corrections should be sent directly to the CR rapporteur. Larger open issues can be discussed with contributions (limited time).

[R2-2312342](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312342.zip) Correction on the SL destinaitons in SUI message Apple, Huawei, HiSilicon CR Rel-17 38.331 17.6.0 4424 - F NR\_SL\_relay-Core

[R2-2312614](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312614.zip) Considerations on applicability of SIB12 received via relay connection Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SL\_relay-Core

[R2-2312624](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312624.zip) Correction on pre-configuration usage Xiaomi Technology CR Rel-17 38.304 17.6.0 0360 - F NR\_SL\_relay\_enh-Core

[R2-2312932](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312932.zip) Correction on the SidelinkUEInformationNR message Ericsson, Apple, Vivo CR Rel-17 38.300 17.6.0 0719 1 F NR\_SL\_relay-Core [R2-2311220](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311220.zip) Withdrawn

[R2-2313099](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313099.zip) Correction on SL relay RRC Philips International B.V. CR Rel-17 38.331 17.6.0 4466 - F NR\_SL\_relay-Core

[R2-2313354](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313354.zip) Correction on SRAP for sidelink relay ZTE, Sanechips CR Rel-17 38.351 17.6.0 0028 - F NR\_SL\_relay-Core

[R2-2313458](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313458.zip) Correction on the SidelinkUEInformationNR message Ericsson, Apple, Vivo CR Rel-17 38.300 17.6.0 0744 - F NR\_SL\_relay-Core

[R2-2313477](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313477.zip) Clarification on preconfiguration usage in U2N relay Qualcomm Incorporated discussion Rel-17 NR\_SL\_relay-Core

[R2-2313513](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313513.zip) Clarification on the case SL frequency is not included in SIB12 Huawei, HiSilicon CR Rel-17 38.304 17.6.0 0368 - F NR\_SL\_relay-Core

## 6.3 NR Non-Terrestrial Networks (NTN)

(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))

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A single CR per TS with miscellaneous corrections is encouraged. Small editorial corrections should be sent directly to rapporteur. Big open issues can be discussed with contributions with CR in the appendix of the contribution

### 6.3.0 In Principle Agreed CRs

[R2-2312626](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312626.zip) Notes in the RRC release procedure for NR-NTN Google Inc., Qualcomm Inc., LG Electronics CR Rel-17 38.331 17.6.0 4351 2 F NR\_NTN\_solutions-Core [R2-2311313](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311313.zip)

### 6.3.1 Other

[R2-2311964](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311964.zip) Correction on Event D1 OPPO CR Rel-17 38.331 17.6.0 4402 - F NR\_NTN\_solutions-Core

[R2-2312211](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312211.zip) Consideration on UTC reference point and correction on CondEvent T1 in NR NTN R17 ZTE Corporation, Sanechips discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2313081](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313081.zip) Miscellaneous corrections to 38.331 for NR NTN Huawei, HiSilicon CR Rel-17 38.331 17.6.0 4463 - F NR\_NTN\_solutions-Core

[R2-2313194](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313194.zip) Clarification on cellBarredNTN in RRC\_CONNECTED Qualcomm Technologies Ireland discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2313298](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313298.zip) UTC reference point in NR NTN R17 Ericsson discussion Rel-17 NR\_NTN\_solutions

[R2-2313369](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313369.zip) Correction to 38.321 on Koffset handling during MAC reset Huawei, Ericsson, Samsung, OPPO, Nokia, Qualcomm, HiSilicon CR Rel-17 38.321 17.6.0 1692 1 F NR\_NTN\_solutions-Core [R2-2311598](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311598.zip)

[R2-2313486](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313486.zip) RP of epoch time for neighbor and target cells / RP of t-Service Sequans Communications discussion Rel-17 NR\_NTN\_solutions-Core

=> Revised in [R2-2313554](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313554.zip)

[R2-2313554](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313554.zip) RP of epoch time for neighbor and target cells / RP of t-Service Sequans Communications discussion Rel-17 NR\_NTN\_solutions-Core

## 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

### 6.4.0 In Principle Agreed CRs

[R2-2311868](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311868.zip) Clarification on the field description of dl-prs-ResourceSetPeriodicityReq vivo CR Rel-17 37.355 17.6.0 0477 - F NR\_pos\_enh-Core Revised

[R2-2312445](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312445.zip) Correction on LocationMeasurementIndication procedure for positioning ZTE Corporation, Ericsson CR Rel-17 38.331 17.6.0 4336 2 F NR\_pos\_enh-Core [R2-2311377](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311377.zip)

[R2-2312935](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312935.zip) Field description correction for HA-GNSS metrics Ericsson CR Rel-17 37.355 17.6.0 0479 - F NR\_pos\_enh-Core Withdrawn

[R2-2313418](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313418.zip) Field description correction for HA-GNSS metrics Ericsson CR Rel-17 37.355 17.6.0 0474 2 F NR\_pos\_enh-Core [R2-2311378](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311378.zip)

[R2-2313538](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313538.zip) Clarification on the field description of dl-prs-ResourceSetPeriodicityReq vivo CR Rel-17 37.355 17.6.0 0477 1 F NR\_pos\_enh-Core [R2-2311868](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311868.zip)

[R2-2313555](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313555.zip) Correction to UE TEG Capability Qualcomm Incorporated CR Rel-17 37.355 17.6.0 0475 1 F NR\_pos\_enh-Core [R2-2310909](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310909.zip)

[R2-2313583](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313583.zip) GNSS LOS/NLOS posSIB broadcast assistance information [GNSS LOS/NLOS] Vodafone, Spirent, Ericsson, Telecom Italia, Samsung CR Rel-18 36.331 17.6.0 4931 3 B TEI18 [R2-2306786](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2306786.zip)

[R2-2313584](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313584.zip) GNSS LOS/NLOS posSIB broadcast assistance information [GNSS LOS/NLOS] Vodafone, Spirent, Ericsson, Telecom Italia, Samsung CR Rel-18 38.331 17.6.0 4109 3 B TEI18 [R2-2306787](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2306787.zip)

[R2-2313585](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313585.zip) GNSS LOS/NLOS assistance information [GNSS LOS/NLOS] Vodafone, Spirent, Ericsson, Telecom Italia, Samsung CR Rel-18 37.355 17.6.0 0446 3 B TEI18 [R2-2306788](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2306788.zip)

### 6.4.1 Other

A single CR per TS (RRC, LPP, MAC, UEcap 306) with miscellaneous corrections is encouraged. Small editorial corrections should be sent directly to the CR rapporteur. Larger open issues can be discussed with contributions (limited time).

Including outcome of [Post123bis][402][POS] BDS B1C corrections (CATT)

[R2-2311703](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311703.zip) LS Out Sub One Second Report Period for Deferred Location over SBI (C4-234472; contact: Ericsson) CT4 LS in Rel-17 5G\_eLCS\_ph2 To:RAN2, RAN3

[R2-2311718](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311718.zip) Reply LS on support of multiple location estimate instances in a single measurement (R1-2310675; contact: ZTE) RAN1 LS in Rel-17 NR\_pos\_enh-Core To:RAN2

[R2-2312269](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312269.zip) Correction to UE capability for batch reporitng Huawei, HiSilicon CR Rel-17 37.355 17.6.0 0478 - F NR\_pos\_enh-Core

[R2-2313060](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313060.zip) Missing correction for SBAS ID presence in Rel-17 SI scheduling MediaTek Inc., Ericsson CR Rel-17 38.331 17.6.0 4462 - F NR\_pos\_enh-Core

[R2-2313100](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313100.zip) Correction on posSIB(s) acquisition Philips International B.V. CR Rel-17 38.331 17.6.0 4467 - F NR\_pos\_enh-Core

[R2-2313242](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313242.zip) Definition of Positioning Frequency Layer Nokia, Nokia Shanghai Bell CR Rel-17 37.355 17.6.0 0484 - F NR\_pos\_enh-Core

[R2-2313342](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313342.zip) Correction on transmission of SSR Assistance Data based on BDS B1C CATT, CAICT, CMCC, China Telecom, China Unicom, Huawei, ZTE Corporation, MediaTek Inc., OPPO, xiaomi, vivo, Spreadtrum CR Rel-17 38.331 17.6.0 4489 - F NR\_pos\_enh-Core

[R2-2313343](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313343.zip) Correction on transmission of SSR Assistance Data based on BDS B1C CATT, CAICT, CMCC, China Telecom, China Unicom, Huawei, ZTE Corporation, MediaTek Inc., OPPO, xiaomi, vivo, Spreadtrum CR Rel-17 37.355 17.6.0 0485 - F NR\_pos\_enh-Core

[R2-2313344](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313344.zip) Report of [Post123bis][402][POS] BDS B1C corrections (CATT) CATT discussion Rel-17 NR\_pos\_enh-Core

[R2-2313361](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313361.zip) Correction to UE capability for batch reporitng Ericsson CR Rel-17 37.355 17.6.0 0486 - F NR\_pos\_enh-Core

[R2-2313504](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313504.zip) Correction on transmission of SSR Assistance Data based on BDS B1C CATT, CAICT, CMCC, China Telecom, China Unicom, Huawei, ZTE Corporation, MediaTek Inc., OPPO, xiaomi, vivo, Spreadtrum CR Rel-17 36.331 17.6.0 4979 - F NR\_pos\_enh-Core

## 6.5 SON MDT

(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))

Tdoc Limitation: 2 tdocs

### 6.5.0 In Principle Agreed CRs

[R2-2312892](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312892.zip) Logging previousPSCellId in case of SCG addition failure Ericsson CR Rel-17 38.331 17.6.0 4348 1 F NR\_ENDC\_SON\_MDT\_enh-Core [R2-2310742](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310742.zip)

[R2-2312893](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312893.zip) Successful handover report is missing under ObtainCommonLocationInfo Ericsson CR Rel-17 38.331 17.6.0 4349 1 F NR\_ENDC\_SON\_MDT\_enh-Core [R2-2310743](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310743.zip)

[R2-2313128](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313128.zip) Correction on delay definitions for split DRB Huawei, HiSilicon CR Rel-17 38.314 17.3.0 0031 - F NR\_ENDC\_SON\_MDT\_enh-Core

### 6.5.1 SON Corrections

[R2-2312894](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312894.zip) On logging CHO candidate cells in SHR Ericsson CR Rel-17 38.331 17.6.0 4451 - F NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2312895](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312895.zip) Discussion on the areaConfiguration Ericsson discussion NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2313322](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313322.zip) Failure cause in RLF report for inter-RAT mobility Sharp CR Rel-17 38.331 17.6.0 4486 - F NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2313324](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313324.zip) Failure information in RLF report for inter-RAT mobility SHARP Corporation discussion

### 6.5.2 MDT Corrections

[R2-2313273](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313273.zip) Corrections on extension of AreaConfiguration CATT CR Rel-17 38.331 17.6.0 4327 1 F NR\_ENDC\_SON\_MDT\_enh-Core [R2-2310364](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310364.zip)

## 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.).

### 6.6.0 In Principle Agreed CRs

[R2-2312083](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312083.zip) Misc RRC corrections for SL enhancements Huawei, HiSilicon (Rapporteur), Apple CR Rel-17 38.331 17.6.0 4390 1 F NR\_SL\_enh-Core [R2-2311492](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311492.zip)

[R2-2313577](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313577.zip) Rel-17 MAC corrections LG, OPPO, Huawei, HiSilicon, Samsung, ZTE Corporation, Sanechips, Ericsson, Lenovo, Interdigital CR Rel-17 38.321 17.6.0 1691 1 F NR\_SL\_enh-Core [R2-2311494](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311494.zip)

### 6.6.1 Other

[R2-2312340](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312340.zip) Correction on PC5 PDCP reestablishment Apple, ZTE CR Rel-17 38.323 17.5.0 0129 - F NR\_SL\_enh-Core

[R2-2312341](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312341.zip) Correction on SL-DRX reject reporting to gNB Apple, Huawei, HiSilicon, OPPO CR Rel-17 38.331 17.6.0 4423 - F NR\_SL\_enh-Core

[R2-2312503](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312503.zip) Discussion on the field description related to CBR-based transmission Sharp, Philips, Apple discussion Rel-17 5G\_V2X\_NRSL-Core

[R2-2312532](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312532.zip) Correction on MAC layer for sidelink enhancement ZTE Corporation, Sanechips CR Rel-17 38.321 17.6.0 1709 - F NR\_SL\_enh-Core

[R2-2313186](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313186.zip) MAC correction for Sidelink CSI reporting ASUSTeK CR Rel-17 38.321 17.6.0 1720 - F 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 Capabilites

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

[R2-2311717](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311717.zip) LS on Rel-18 RAN1 UE features list for NR after RAN1#114bis (R1-2310637; 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 Cc:RAN4

- Lenovo indicates that the feature list includes the term legacy that we don’t use in RAN2 and tell this to RAN1. We have two problems in description and in field. We should try to avoid using the term legacy even in the field names.

- Intel indicates that currently the CR still has the term legacy.

- Mediatek indicates that the previous releases have been bad quality and we should fix it in this meeting.

- Samsung thinks we need to clarify what legacy means, rel-16/17?

=> Replace the terms legacy for Rel-18 and avoid using upper layer parameters for RRC parameters.

=> Noted

[R2-2312126](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312126.zip) [DRAFT] Reply LS on Rel-18 RAN1 UE features list for NR after RAN1#114bis Lenovo LS out 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:RAN1 Cc:RAN4

=> Postponed

[R2-2312144](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312144.zip) Running UE capability CR on 38.306 for Rel-18 R1 R4 feature lists Intel Corporation draftCR Rel-18 38.306 17.6.0 NR\_MIMO\_evo\_DL\_UL, NR\_netcon\_repeater, NR\_DSS\_enh, NR\_MC\_enh, NR\_FR1\_lessthan\_5MHz\_BW, NR\_BWP\_wor, NR\_redcap\_enh, NR\_XR\_enh, TEI18

=> The CR is endorsed

[R2-2312145](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312145.zip) Running UE capability CR on 38.331 for Rel-18 R1 R4 feature lists Intel Corporation draftCR Rel-18 38.331 17.6.0 NR\_MIMO\_evo\_DL\_UL, NR\_netcon\_repeater, NR\_DSS\_enh, NR\_MC\_enh, NR\_FR1\_lessthan\_5MHz\_BW, NR\_BWP\_wor, NR\_redcap\_enh, NR\_XR\_enh, TEI18

=> The CR is endorsed

[R2-2312150](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312150.zip) Rel-18 UE capability handling Intel Corporation discussion Rel-18 NR\_MIMO\_evo\_DL\_UL, NR\_netcon\_repeater, NR\_DSS\_enh, NR\_MC\_enh, NR\_FR1\_lessthan\_5MHz\_BW, NR\_BWP\_wor, NR\_redcap\_enh, NR\_XR\_enh, TEI18

=> Revised in [R2-2313581](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313581.zip)

[R2-2313581](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313581.zip) Rel-18 UE capability handling Intel Corporation discussion Rel-18 NR\_MIMO\_evo\_DL\_UL, NR\_netcon\_repeater, NR\_DSS\_enh, NR\_MC\_enh, NR\_FR1\_lessthan\_5MHz\_BW, NR\_BWP\_wor, NR\_redcap\_enh, NR\_XR\_enh, TEI18

Proposal 2: RAN2 to agree that RAN1/4 feature list received after the end of RAN2 November meeting and RAN2 CRs endorsed after post email discussion official deadline (i.e. 23rd Nov) will not be included as part of December specification version.

Proposal 3: RAN2 to inform RAN1/4 on the following:

- Inform RAN1 and RAN4 that further agreements or updated RAN1/4 feature list, if any, received after RAN2 meeting (i.e. after the 17th of November) will not be part of December specification version but will be incorporated in the next quarter.

- Inform RAN1 and RAN4 that RAN2 will only implement the feature groups from the RAN1 and 4 feature list without any FFS (no highlighted yellow, [] and marked as FFS/TBD) into the CRs. Also, the capabilities that are dependent on FFS capabilities will not be implemented. (Agreement from RAN2 #116e meeting)

Proposal 4: WI rapporteur to ensure that:

- Submitted endorsed CRs as draft CR is preferred.

- The author identity of the endorsed CRs for RAN2 capability is set to the WI-code for all the changes in the CRs.

- The drafting rules, including the correct use of word-styles, using latest specification version are to be followed.

- Change-over-changes are not present in endorsed CRs.

- For WI specific RAN1/4 capabilities, to add the FG description on top of the UE capability in 38.331.

Proposal 5: To rapporteurs and session chairs of WI, please be reminded to include the following in the endorsed CRs for RAN2 determined features:

• RAN2 features and capabilities, that are developed only in RAN2, are developed individually per WI, under WI-specific agenda Items. Draft CRs (running CRs) for 38.331 and 38.306 are produced and endorsed.

• The 306 CRs shall include an annex containing the RAN2 determined UE capabilities in the feature list format (similar to annex containing RAN2 agreements) for easy compilation into the TR38.822 in the later stage (as agreed in RAN2 #116-e).

Proposal 6: The final CRs from the mega rapporteur to have:

- For the merged CRs:

o Author identity for each WI related RAN2 capability is set to the WI code for that WI.

 For RAN1/4 UE feature list CRs, the mega rapporteur to use WI-code related to the WI of the RAN1 or RAN4 feature.

o RAN2 Tdoc number of the endorsed CRs (title and number) in the cover sheet.

o For RAN1/4 UE feature list, the feature list Tdoc numbers to be provided in the coversheet

Proposal 7: RAN2 to discuss whether RAN2 TEI18 should be included as part of mega CR or not.

Proposal 8: RAN2 TEI18 UE capability CR authors should also follow the above Proposal 4 to Proposal 6.

Proposal 9: RAN2 to inform RAN1/4 on the following:

- For RAN1/4 TEI18 UE features, RAN1/4 should also provide RAN2 with the unique ID of TEI18 CR.

=> companies should follow the guidance and timeline proposed in this contribution.

=> RAN4 capabilities from Other AI will be implemented in the mega CR

=> Include the RAN2 TEI18 capabilities in the mega CR

=> Noted

[R2-2313899](file:///C:\\Users\\panidx\\OneDrive%20-%20InterDigital%20Communications,%20Inc\\Documents\\3GPP%20RAN\\TSGR2_124\\Docs\\R2-2311717.zip) LS on RAN4 UE feature list for Rel-18 (R4-2321730; contact: CMCC) RAN4 LS in Rel-18 NR\_ENDC\_RF\_FR1\_enh2, NR\_channel\_raster\_enh To:RAN2 Cc:RAN1

[R2-2312972](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312972.zip) Interpretation of UE capability guidelines Ericsson discussion

*Proposal 1 RAN2 to inform RAN1/4 that, to avoid confusion and for simplicity, the previous guideline on “Avoid defining capabilities with pre-requisite on a finer granularity” needs not to be followed.*

- Huawei understands the intention but doesn’t want to send anything to them as they are in the middle of implementation and discussion.

- Samsung thinks that changing this guideline will only cause more confusion in the WGs.

=> Noted

### 7.0.2 CCCH LCID extension

Tdoc limitation: 1

Contributions should focus on further details related to general CCCH LCID extension solution (e.g. cross-WI), including explicit indication from RRC to enable the feature.

MAC CR (Samsung) and RRC CR (CMCC) expected as input.

**Running CRs**

[R2-2313219](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313219.zip) LCID extension for CCCH/CCCH1 Samsung CR Rel-18 38.321 17.6.0 1721 - B NR\_newRAT-Core, NR\_redcap\_enh-Core, NR\_NTN\_enh-Core

=> The CR is endorsed

[R2-2313220](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313220.zip) LCID extension for CCCH/CCCH1 Samsung CR Rel-18 38.331 17.6.0 4481 - B NR\_newRAT-Core, NR\_redcap\_enh-Core, NR\_NTN\_enh-Core

=> The CR is not needed for Rel-18

**Indication of LCID exention support**

[R2-2312912](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312912.zip) Consideration on detailed design of LCID extension Huawei, HiSilicon discussion Rel-18 NR\_NTN\_enh-Core, NR\_DualTxRx\_MUSIM-Core, NR\_redcap\_enh-Core

Proposal 3: Introduce one-bit indication in SIB1 to indicate whether the NW supports LCID extension.

=> Noted

[R2-2312067](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312067.zip) Further Discussion on CCCH/CCCH1 LCID extension CATT discussion

Proposal 3: The support of CCCH/CCCH1 LCID extension is indicated implicitly by the indication(s) on the support of the specific features that need such CCCH/CCCH1 LCID extension in the system information.

=> Noted

[R2-2311794](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311794.zip) Discussion on CCCH LCID extension OPPO discussion Rel-18 NR\_NTN\_enh-Core, NR\_redcap\_enh-Core

Proposal 1: R2 not pursue additional bit in SIB to enable the usage of MSG3 indication for R18 NTN PUCCH reception capability, i.e., relying on the presence of signaling for the number of repetitions and RSRP configuration in SIB for it, as agreed in NTN session.

Proposal 2: R2 confirms rely on R18 RedCap barring bit to enable the R18 RedCap early indication via MSG3.

Proposal 3: R2 not pursue feature-agnostic bit in SIB to enable the MSG3 R-bit extension feature.

=> Noted

*Discussion on explicit indication in SIB1 or implicit indication*

­- CATT and Oppo don’t see the need of this explicit indication.

- Vodafone thinks that we can decide which features support the new format and then it would be linked with that format. We shouldn’t have a generic indication as the NW will only implement the new format if it supports the impacted features.

- Qualcomm thinks that it is still good to have an explicit indication.

- LG thinks that if we don’t have explicit then we can’t use LCID extension for other things other than CCCH and CCCH1.

- ZTE understands that the network has to be prepared to receive this LCID extension even for the future.

- CATT asks if we need to link the explicit indication with the feature support.

- Nokia thinks that we don’t need it now so we can add it later.

- Intel thinks that the only question if there is something in the future, and explicit indication would help us be future proof.

**MAC CE subheader format**

MAC subheader formats

[R2-2312067](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312067.zip) Further Discussion on CCCH/CCCH1 LCID extension CATT discussion

*Proposal 1: Adopt the MAC subheader format Ext/R/LCID for CCCH/CCCH1 LCID extension with LCID field kept as 6 bits.*

=> Noted

[R2-2312084](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312084.zip) MAC Subheader details for the new LCID space ZTE Corporation, Sanechips discussion

*Proposal 1: Adopt the subheader format with Lx/R/R/EarlyUEIndication(5 bit) for the extended LCID space.*

=> Noted

[R2-2313425](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313425.zip) LCID extension for CCCH Nokia, Nokia Shanghai Bell, InterDigital discussion Rel-18 NR\_redcap\_enh-Core

Proposal 1: When LCID extension is indicated by the leftmost R bit in the MAC subheader, a new R bit is introduced for each UL-SCH MAC subheader type which includes the new LCID field. This R bit can be the 3rd leftmost bit or the rightmost bit of the first byte in the MAC subheader.

Proposal 2: Assign one bit in the MAC subheader to indicate whether CCCH or CCCH1 is transmitted as MAC SDU.

=> Noted

[R2-2313028](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313028.zip) Details on NR LCID extension for UL CCCH/CCCH1 Qualcomm Incorporated discussion Rel-18 NR\_NTN\_enh-Core, NR\_redcap\_enh-Core

*Proposal 3: Decide whether to add LCID codepoints 64-127 in Table 6.2.1-2 in TS 38.321 or create a new table 6.2.1-2c with new LCID codepoint 0-63 (to be used when LX = 1).*

=> Noted

Discussion

*Possible MAC subheader formats:*

*Option 1: Lx/R/LCID (6-bit LCID field)*

*Option 2: Lx/R/R/LCID (5-bit LCID field)*

*Option 3: Lx/C/R/LCID (5-bit LCID field)*

*Option 4: Lx/R/LCID (7-bit LCID field – L field is treated as additional bit to existing 6-bit LCID)*

*Discussion on format (e.g. 1 R bit or 2 R bits, how is the additional R bit used)*

- Huawei supports the way it is implemented in the CR and CATT.

- Ericsson thinks that we now have 7 bits that we can define in some way. Ericsson thinks that now MUSIM is using msg5 we don’t need to use the leftmost bit and we can leave the discussion for next release and implement a more flexible solution for the future.

- Qualcomm thinks that we should keep the rest of the bits as they are.

*Does LCID point to new table, or be considered as as an extension to the existing LCID field?*

*Do we use old codepoints or new codepoints for Rel-18 for CCCH/CCCH1 indication*

-

*Decide whether to add LCID codepoints 64-127 in Table 6.2.1-2 in TS 38.321 or create a new table 6.2.1-2c with new LCID codepoint 0-63 (to be used when LX = 1).*

- Ericsson thinks that we should give the new table a name so it is easy to refer to the table. Qualcomm thinks that we can just refer to the table number like we usually do.

**Impact to existing MAC CE subheader formats**

[R2-2312067](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312067.zip) Further Discussion on CCCH/CCCH1 LCID extension CATT discussion

Proposal 2: RAN2 to discuss to only change the 1-type MAC subheader format with the 1st bit redefined for CCCH/CCCH1 LCID extension in Rel-18 (with the understanding that this redefinition of 1st bit applies to all subheader formats).

**Use of new codepoints**

[R2-2313028](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313028.zip) Details on NR LCID extension for UL CCCH/CCCH1 Qualcomm Incorporated discussion Rel-18 NR\_NTN\_enh-Core, NR\_redcap\_enh-Core

Proposal 4: The UL CCCH/CCCH1 indications introduced in Rel18+ by default use the LCID extension codepoints (not the legacy reserved codepoints).

**Agreements on LCID extension**

1. The support of CCCH/CCCH1 LCID extension is indicated implicitly by the indication(s) on the support of the specific features that need such CCCH/CCCH1 LCID extension in the system information
2. Adopt the MAC subheader format Ext/R/LCID for CCCH/CCCH1 LCID extension with LCID field kept as 6 bits, as captured in endorsed CR.
3. The UL CCCH/CCCH1 indications introduced in Rel18 by default use the LCID extension codepoints (not the legacy reserved codepoints).
4. Create a new table 6.2.1-2c with new LCID codepoint 0-63 (to be used when LX = 1)

* [POST124][014][LCID ext] 38.321 CR (Samsung)

- Intended outcome: agree to CR by email

- Deadline: 2 weeks

**Not Treated**

[R2-2311815](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311815.zip) Further Discussion on CCCH LCID Extension vivo discussion Rel-18 NR\_NTN\_enh-Core, NR\_DualTxRx\_MUSIM-Core

[R2-2313303](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313303.zip) Early indications and LCID space extension Ericsson discussion Rel-18 NR\_NTN\_enh-Core

[R2-2313292](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313292.zip) Discussion on LCID extension LG Electronics Inc. discussion

[R2-2312648](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312648.zip) Considerations on the CCCH LCID extension CMCC discussion Rel-18

### 7.0.3 Other

[R2-2311706](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311706.zip) LS on Rel-18 higher-layers parameter list (R1-2308674; contact: Ericsson) RAN1 LS in 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, TEI18 To:RAN2, RAN3 Cc:RAN4

=> Similar to UE capabilities remove legacy and upper layer terminology

- Ericsson indicates that we need to send an LS back to RAN1 in February to provide the RAN2 terminology of the parameters. Each WI rapporteur should provide their part in an excel sheet.

- Lenovo asks why in February, we can do it after the May meeting. Ericsson thinks we can discuss when to do it, but if we change the structure of what RAN1 has initially done we may need to notify them earlier.

=> Noted

[R2-2311721](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311721.zip) LS on Rel-18 higher-layers parameter list (R1-2310694; contact: Ericsson) RAN1 LS in Rel-18 NR\_MC\_enh-Core, NR\_MIMO\_evo\_DL\_UL-Core, NR\_SL\_enh2-Core, NR\_pos\_enh2-Core, Netw\_Energy\_NR-Core, NR\_cov\_enh2-Core, NR\_XR\_enh-Core, NR\_Mob\_enh2-Core, NR\_NTN\_enh-Core, IoT\_NTN\_enh-Core To:RAN2, RAN3 Cc:RAN4

=> Noted

[R2-2313023](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313023.zip) Rel-18 ASN.1 review Ericsson discussion Rel-18 TEI18 Late

*b. To be decided later whether to use ASN.1 review process, e.g. allocating new RILs*

- Ericson thinks that phase 2 doesn’t need to follow ASN.1 review process (we can follow the normal individual CRs)

- Lenovo is concerned about the April meeting tight deadline, maybe we can allow late submissions. Ericsson agrees to allow late submissions.

=> Baseline assumption is that phase 2 will not follow the ASN.1 review process, but can be revisited in February based on status.

=> Late submissions for ASN.1 will be allowed for April meeting.

=> 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 Endorsed CRs

All the enbdorsed CRs should be submitted to this meeting updated based on the latest specifications.

[R2-2312146](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312146.zip) Introduction of UE Capabilities for Rel-18 NCR WI Intel Corporation draftCR Rel-18 38.306 17.6.0 NR\_netcon\_repeater-Core

[R2-2312147](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312147.zip) Introduction of UE Capabilities for Rel-18 NCR WI Intel Corporation draftCR Rel-18 38.331 17.6.0 NR\_netcon\_repeater-Core

[R2-2312415](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312415.zip) Introduction of NCR in TS 38.304 CATT CR Rel-18 38.304 17.6.0 0345 2 B NR\_netcon\_repeater [R2-2306610](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2306610.zip)

[R2-2312769](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312769.zip) Introducing support for Network Controlled Repeaters to 38.331 ZTE Corporation (Rapporteur) CR Rel-18 38.331 17.6.0 4162 4 B NR\_netcon\_repeater [R2-2309051](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2309051.zip)

[R2-2312887](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312887.zip) Introduction of support for Network Controlled Repeaters Samsung CR Rel-18 38.321 17.6.0 1554 10 B NR\_netcon\_repeater-Core [R2-2311481](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311481.zip)

[R2-2313104](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313104.zip) Introducing support for Network-Controlled Repeaters to 38.300 Ericsson CR Rel-18 38.300 17.6.0 0685 4 B NR\_netcon\_repeater [R2-2310898](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310898.zip)

### 7.1.2 Others

[R2-2312012](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312012.zip) Discussion on NCR’s behaviours upon TAT expiry Fujitsu discussion Rel-18 NR\_netcon\_repeater

[R2-2313105](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313105.zip) Correction on Periodic and Semi-Persistent FwdResourceSets Ericsson draftCR Rel-18 38.331 17.6.0 F NR\_netcon\_repeater

[R2-2313195](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313195.zip) Correction to p-Max and NS value usage for NCR-MT Nokia, Nokia Shanghai Bell CR Rel-18 38.331 17.6.0 4475 - F NR\_netcon\_repeater

[R2-2313371](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313371.zip) Correction on the size of SRI field in the NCR related MAC CE Huawei, HiSilicon CR Rel-18 38.321 17.6.0 1723 - F NR\_netcon\_repeater

[R2-2313508](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313508.zip) Correction of SRI use for NCR Samsung, ZTE draftCR Rel-17 38.321 17.6.0 F NR\_netcon\_repeater-Core

## 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: 2 TU

Tdoc Limitation: 4 tdocs

### 7.2.1 Organizational

Including incoming LSs and rapporteur inputs.

Including, for each affected spec:

* Updated running CR
* List of open issues to be addressed by company contributions
* (where applicable) CR rapporteur input with proposals for stage-3 issues (e.g., signalling details, parameter values/ranges) where company contributrions should be avoided

Including report of [Post123bis][407][POS] Rel-18 positioning capabilities (Xiaomi)

[R2-2311704](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311704.zip) Reply LS on SL positioning MAC agreements (R1-2310402; contact: Huawei) RAN1 LS in Rel-18 FS\_eLCS\_Ph3, NR\_pos\_enh2 To:RAN2 Cc:SA2

[R2-2311707](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311707.zip) LS on PRS bandwidth aggregation (R1-2310478; contact: ZTE) RAN1 LS in Rel-18 NR\_pos\_enh2 To:RAN4 Cc:RAN2, RAN3

[R2-2311734](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311734.zip) Reply LS on Authorization and Provisioning for Ranging/SL positioning service (R3-235933; contact: Xiaomi) RAN3 LS in Rel-18 Ranging\_SL, NR\_pos\_enh2 To:SA2 Cc:RAN2, CT4

[R2-2311744](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311744.zip) Reply LS to RAN1 on SRS and PRS bandwidth aggregation for positioning (R4-2317389; contact: ZTE) RAN4 LS in Rel-18 NR\_pos\_enh2 To:RAN1 Cc:RAN2, RAN3

[R2-2311745](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311745.zip) LS on report mapping for positioning measurements with PRS\_SRS bandwidth aggregation (R4-2317390; contact: Ericsson) RAN4 LS in Rel-18 NR\_pos\_enh2-Core To:RAN2, RAN3 Cc:RAN1

[R2-2311746](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311746.zip) LS on SL positioning and carrier phase positioning measurements (R4-2317391; contact: CATT) RAN4 LS in Rel-18 NR\_pos\_enh2 To:RAN1, RAN2, RAN3

[R2-2311765](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311765.zip) Reply LS to Reply LS to SA2 on assistance information provided to UE (S2-2311896; contact: Xiaomi) SA2 LS in Rel-18 Ranging\_SL To:RAN2, CT1, CT4

[R2-2311860](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311860.zip) Introduction of sidelink positioning in 38300 vivo CR Rel-18 38.300 17.6.0 0722 - B FS\_NR\_pos\_enh2 Revised

[R2-2312020](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312020.zip) Report of [Post123bis][412][POS] TS 38.355 (Intel) Intel Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2312021](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312021.zip) TS 38.355 v1.2.0 Intel Corporation draft TS Rel-18 38.355 1.2.0 NR\_pos\_enh2

[R2-2312022](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312022.zip) Further Considerations on SLPP related open issues Intel Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2312023](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312023.zip) Draft TS 38.355 v1.3.0 Intel Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2312028](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312028.zip) Capture SLPP related RAN1 parameters Intel Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2312256](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312256.zip) Introduction of R18 positioning to MAC spec Huawei, HiSilicon CR Rel-18 38.321 17.6.0 1700 - B NR\_pos\_enh2

[R2-2312257](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312257.zip) Summary of open issue list for MAC issues for R18 positioning Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2

[R2-2312258](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312258.zip) Summary of discussion on proposed WF for R18 MAC spec drafting Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2

[R2-2312259](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312259.zip) Summary of email discussion [Post123bis][409][POS] Rel-18 positioning MAC CRs (Huawei) Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2

[R2-2312260](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312260.zip) Draft running MAC CR for CA positioning Huawei, HiSilicon draftCR Rel-18 38.321 17.6.0 NR\_pos\_enh2

[R2-2312261](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312261.zip) Draft running MAC CR for carrier phase positioning Huawei, HiSilicon draftCR Rel-18 38.321 17.6.0 NR\_pos\_enh2

[R2-2312262](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312262.zip) Draft running MAC CR for LPHAP Huawei, HiSilicon draftCR Rel-18 38.321 17.6.0 NR\_pos\_enh2

[R2-2312263](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312263.zip) Draft running MAC CR for REDCAP positioning Huawei, HiSilicon draftCR Rel-18 38.321 17.6.0 NR\_pos\_enh2

[R2-2312264](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312264.zip) Draft running MAC CR for sidelink positioning Huawei, HiSilicon draftCR Rel-18 38.321 17.6.0 NR\_pos\_enh2

[R2-2312265](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312265.zip) Draft reply LS on L1 priority Huawei, HiSilicon LS out Rel-18 NR\_pos\_enh2 To:RAN1

[R2-2312267](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312267.zip) Introduction of R18 positioning to RRC\_IDLE mode procedure Huawei, HiSilicon CR Rel-18 38.304 17.6.0 0358 - B NR\_pos\_enh2

[R2-2312268](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312268.zip) Introduction of R18 positioning to MR-DC Huawei, HiSilicon CR Rel-18 37.340 17.6.0 0371 - B NR\_pos\_enh2

[R2-2312726](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312726.zip) Running CR 38.306-SL positioning Xiaomi draftCR Rel-18 38.306 17.6.0 B NR\_pos\_enh2

[R2-2312727](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312727.zip) TP for SLPP and RRC capability signalling for SL positioning Xiaomi discussion Rel-18

[R2-2312752](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312752.zip) Running CR 38.306 for R18 Uu positioning Xiaomi draftCR Rel-18 38.306 17.6.0 NR\_pos\_enh2

[R2-2312755](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312755.zip) TP for LPP capability signalling for Bandwidth Aggregation Xiaomi discussion

[R2-2312756](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312756.zip) TP for LPP capability signalling for CPP Xiaomi discussion

[R2-2312757](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312757.zip) TP for LPP capability signalling for LPHAP Xiaomi discussion

[R2-2312758](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312758.zip) TP for LPP capability signalling for RAT-dependent positioning integrity Xiaomi discussion

[R2-2312759](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312759.zip) TP for LPP capability signalling for RedCap Xiaomi discussion

[R2-2312760](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312760.zip) TP for RRC capability signalling for Uu positioning Xiaomi discussion

[R2-2312761](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312761.zip) Report of [Post123bis][407][POS] Rel-18 positioning capabilities Xiaomi discussion

[R2-2312762](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312762.zip) Open issue list for Rel-18 positioning capability Xiaomi discussion

[R2-2312786](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312786.zip) Introduction of 'Expanded and improved NR positioning' Qualcomm Incorporated (Rapporteur) CR Rel-18 38.305 17.6.0 0150 - B NR\_pos\_enh2

[R2-2312787](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312787.zip) Summary of [Post123bis][411][POS] Rel-18 positioning 38.305 CR (Qualcomm) Qualcomm Incorporated discussion

[R2-2312941](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312941.zip) Introduction of NR Positioning Ericsson CR Rel-18 38.331 17.6.0 4454 - B NR\_pos\_enh2

[R2-2312998](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312998.zip) RRC Positioning RedCap Changes Ericsson draftCR Rel-18 38.331 17.6.0 B NR\_pos\_enh2

[R2-2312999](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312999.zip) RRC Positioning Sidelink Changes Ericsson draftCR Rel-18 38.331 17.6.0 B NR\_pos\_enh2

[R2-2313000](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313000.zip) RRC Positioning Bandwidth Aggregation Changes Ericsson draftCR Rel-18 38.331 17.6.0 B NR\_pos\_enh2

[R2-2313031](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313031.zip) [Post123bis][410][POS] Rel-18 positioning RRC CR (Ericsson) Ericsson report Rel-18

[R2-2313111](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313111.zip) Open issues list on Rel-18 positioning WI CATT,Intel Corporation, Ericsson, Huawei, Qualcomm Incorporated, xiaomi, discussion Rel-18 NR\_pos\_enh2

[R2-2313112](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313112.zip) Report of [Post123bis][408][POS] Rel-18 LPP running CRs (CATT) CATT discussion Rel-18 NR\_pos\_enh2

[R2-2313113](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313113.zip) Introduction of RAT-dependent integrity CATT draftCR Rel-18 37.355 17.6.0 NR\_pos\_enh2

[R2-2313114](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313114.zip) Introduction of bandwidth aggregation CATT draftCR Rel-18 37.355 17.6.0 NR\_pos\_enh2

[R2-2313115](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313115.zip) Introduction of Carrier Phase Positioning CATT draftCR Rel-18 37.355 17.6.0 NR\_pos\_enh2

[R2-2313116](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313116.zip) Introduction of LPHAP and Redcap positioning CATT draftCR Rel-18 37.355 17.6.0 NR\_pos\_enh2

[R2-2313117](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313117.zip) Introduction of Expanded and improved NR positioning CATT CR Rel-18 37.355 17.6.0 0481 - B NR\_pos\_enh2

[R2-2313118](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313118.zip) Draft LS to SA2 on introduction of RAT-Dependent integrity CATT LS out Rel-18 NR\_pos\_enh2 To:SA2

[R2-2313223](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313223.zip) Capturing carrier phase positioning in TS 38.305 Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_pos\_enh2-Core

[R2-2313446](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313446.zip) Rapporteur CR for CPP Positioning RRC Changes Ericsson draftCR Rel-18 38.331 17.6.0 B NR\_pos\_enh2

[R2-2313543](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313543.zip) Introduction of sidelink positioning in 38300 vivo CR Rel-18 38.300 17.6.0 0722 1 B FS\_NR\_pos\_enh2 [R2-2311860](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311860.zip)

### 7.2.2 Sidelink positioning

Positioning architecture and unicast signalling procedures (e.g. configuration, measurement reporting, etc) to enable session-based sidelink positioning for a single target UE. Including measurements to enable RTT-based positioning, SL-AoA, and SL-TDOA; signalling and associated UE behaviour for support of unicast, groupcast (not including many-to-one) and broadcast of SL-PRS transmissions; reporting signalling and procedures to facilitate support of SL positioning between UEs and between UEs and LMF (the latter for in-coverage scenarios only and including joint PC5-Uu scenarios, and with the assumption that all UEs are served by the same LMF); and signalling to NG-RAN for SL positioning and service authorization as needed. No work on procedures for synchronization of the anchor UEs for SL-TDOA.

Companies are requested not to contribute documents on SLPP forwarding or discovery metafield contents. The corresponding email discussions will be treated under this agenda item.

Including report of [Post123bis][404][POS] SLPP forwarding (Intel)

Including report of [Post123bis][405][POS] Sidelink positioning discovery metafield (vivo)

[R2-2311861](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311861.zip) Remaining issues on higher layer aspects for sidelink positioning vivo discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2311862](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311862.zip) Discussion on remaining issues of SL-PRS transmission vivo discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2311863](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311863.zip) Report of [Post123bis][405][POS] Sidelink positioning discovery metafield (vivo) vivo report Rel-18 FS\_NR\_pos\_enh2

[R2-2311929](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311929.zip) UE Positioning using Sidelink Fraunhofer IIS, Fraunhofer HHI discussion

[R2-2312019](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312019.zip) Report of [Post123bis][404][POS] SLPP forwarding (Intel) Intel Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2312024](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312024.zip) MAC related open issues on SL positioning Intel Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2312127](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312127.zip) Further discussion on SLPP and SL positioning capabilities Lenovo discussion Rel-18 NR\_pos\_enh2

[R2-2312254](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312254.zip) Discussion on higher layer aspects for sidelink positioning Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2

[R2-2312255](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312255.zip) Remaining issue for the lower layer for sidelink positioning Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2

[R2-2312266](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312266.zip) Control plane open issue for R18 SL positioning Huawei, HiSilicon, Ericsson discussion Rel-18 NR\_pos\_enh2

[R2-2312310](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312310.zip) SL Positioning Capabilities Apple discussion Rel-18 NR\_pos\_enh2

[R2-2312311](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312311.zip) [DRAFT] Reply LS on Sidelink positioning procedure Apple LS out Rel-18 NR\_pos\_enh2 To:SA2, CT1 Cc:RAN1, SA3

[R2-2312370](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312370.zip) Remaining issues on R18 sidelink positioning LG Electronics Inc. discussion Rel-18

[R2-2312441](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312441.zip) Discussion on remaining issues for lower-layer related sidelink positioning ZTE Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2312442](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312442.zip) Discussion on remaining issues for higher-layer related sidelink positioning ZTE Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2312554](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312554.zip) Further discussion on sidelink positioning SLPP left issue OPPO discussion Rel-18 NR\_pos\_enh2

=> Revised in [R2-2313572](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313572.zip)

[R2-2313572](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313572.zip) Further discussion on sidelink positioning SLPP left issue OPPO discussion Rel-18 NR\_pos\_enh2

[R2-2312555](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312555.zip) Discussion on sidelink positioning leftover MAC issue OPPO discussion Rel-18 NR\_pos\_enh2

[R2-2312566](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312566.zip) Discussion on remaining issues for SL positioning Spreadtrum Communications discussion Rel-18

[R2-2312724](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312724.zip) Discussion on SL positioning open issues Xiaomi discussion Rel-18

[R2-2312807](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312807.zip) Remaining issues on SL Positioning Lenovo discussion Rel-18

[R2-2312836](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312836.zip) Considerations on multiplexing, congestion control and ARP Sony discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2312934](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312934.zip) Discussion on sidelink positioning InterDigital, Inc. discussion Rel-18 NR\_pos\_enh2

[R2-2312937](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312937.zip) Remaining issue for NW involved Sidelink positioning Ericsson discussion Rel-18

[R2-2313059](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313059.zip) Handling of SequenceID in SLPP Philips International B.V. discussion NR\_pos\_enh2

[R2-2313270](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313270.zip) Discussion on MAC open issues Samsung discussion NR\_pos\_enh2-Core

[R2-2313329](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313329.zip) Further Considerations on SLPP Design Qualcomm Incorporated discussion

[R2-2313340](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313340.zip) Discussion on the selected remaining issues on SLPP design Samsung R&D Institute UK discussion

[R2-2313356](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313356.zip) Further discussion on SL positioning and ranging CEWiT discussion

[R2-2313480](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313480.zip) Discussion of SLPP forwarding aspects Nokia Netherlands discussion Rel-18

[R2-2313484](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313484.zip) Discussion of MAC and resource allocation aspects Nokia Netherlands discussion Rel-18

[R2-2313503](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313503.zip) Discussion of SLPP signalling procedures Nokia Netherlands discussion Rel-18

[R2-2313539](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313539.zip) Providing Anchor Location Uncertainty Philips International B.V. discussion NR\_pos\_enh2

### 7.2.3 RAT-dependent integrity

Error modelling parameters, signalling, and procedures to support UE-based and LMF-based integrity of RAT-dependent positioning methods.

[R2-2312938](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312938.zip) Open issues for RAT-dependent integrity Ericsson discussion Rel-18

[R2-2313119](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313119.zip) Remaining Issues for RAT-dependent integrity CATT discussion Rel-18 NR\_pos\_enh2

### 7.2.4 LPHAP

Enhancements for enabling LPHAP use case 6 (TS 22.104), including extending eDRX cycle (coordinated with RedCap WI); SRS configuration enhancements based on validity area for UEs in RRC\_INACTIVE; DL-PRS measurements in RRC\_IDLE and reporting in RRC\_CONNECTED; and alignment between eDRX and PRS configurations.

[R2-2311864](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311864.zip) Discussion on remaining issues of LPHAP vivo discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2311930](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311930.zip) Reliable LPHAP position with extended DRX cycle Fraunhofer IIS, Fraunhofer HHI discussion [R2-2309579](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2309579.zip)

[R2-2312025](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312025.zip) Further considerations on LPHAP Intel Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2312253](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312253.zip) Discussion on LPHAP Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2

[R2-2312401](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312401.zip) Discussion on LPHAP InterDigital Inc. discussion Rel-18

[R2-2312440](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312440.zip) Discussion on remaining issues for LPHAP ZTE Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2312465](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312465.zip) Discussion on low power high accuracy positioning Lenovo discussion Rel-18

[R2-2312556](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312556.zip) Discussion on the leftover issues of LPHAP enhancement OPPO discussion Rel-18 NR\_pos\_enh2

[R2-2312753](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312753.zip) Discussion on LPHA positioning Xiaomi discussion

[R2-2312803](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312803.zip) Remaining issues for LPHAP Qualcomm Incorporated discussion

[R2-2312837](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312837.zip) Remaining considerations on Low Power High Accuracy Positioning Sony discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2312939](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312939.zip) Remaining issue on Low Power High Accuracy Positioning Ericsson discussion Rel-18

[R2-2313120](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313120.zip) Discussion on leftover issues of LPHAP CATT discussion Rel-18 NR\_pos\_enh2

[R2-2313249](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313249.zip) Remaining issues on LPHAP Samsung discussion Rel-18 NR\_pos\_enh2

[R2-2313319](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313319.zip) LPHAP issue of area-specific SRS configuration release Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_pos\_enh2-Core

### 7.2.5 RedCap positioning, carrier phase positioning, and bandwidth aggregation for positioning

RAN1 led objectives that may require progress in RAN1 before RAN2 can take decisions.

[R2-2312082](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312082.zip) Discussion on RAN1 led positioning topics Huawei, HiSilicon discussion

[R2-2312402](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312402.zip) Discussion on positioning for NR Carrier Phase positioning InterDigital Inc. discussion Rel-18

[R2-2312403](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312403.zip) Discussion on positioning for RedCap UE positionin InterDigital Inc. discussion Rel-18

[R2-2312443](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312443.zip) Discussion on remaining issues for BW aggregation and RedCap positioning ZTE Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2312466](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312466.zip) Discussion on RedCap positioning, carrier phase positioning and PRS/SRS bandwidth aggregation Lenovo discussion Rel-18

[R2-2312754](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312754.zip) Discussion on carrier phase positioning and bandwidth aggregation for positioning Xiaomi discussion

[R2-2312804](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312804.zip) Remaining Issues for DL-PRS Aggregation Qualcomm Incorporated discussion

[R2-2312805](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312805.zip) Remaining Issues on PRU Operation Qualcomm Incorporated discussion

[R2-2312838](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312838.zip) Discussion on Frequency hopping for Positioning for RedCap Ues Sony discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2312940](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312940.zip) Discussion based upon RAN1 agreements on CPP, RedCap, Bandwidth aggregation Ericsson discussion Rel-18

[R2-2313121](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313121.zip) Draft LS to RAN1 on positioning issues needing further input CATT LS out Rel-18 NR\_pos\_enh2 To:RAN1 Cc:RAN3, RAN4

[R2-2313122](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313122.zip) Discussion on leftover issues of bandwidth aggregation CATT discussion Rel-18 NR\_pos\_enh2

[R2-2313123](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313123.zip) Discussion on leftover issues of Carrier Phase Positioning CATT discussion Rel-18 NR\_pos\_enh2

[R2-2313250](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313250.zip) Remaining issues on BW aggregation Samsung discussion Rel-18 NR\_pos\_enh2

## 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: 1 TU

Tdoc Limitation: 4 tdocs

### 7.3.1 Organizational

LS, workplan, email discussion etc

Expected inputs: running CRs for the following: 38.300 [Ericsson], 38.331 [Huawei], 38.321 [InterDigital], 38.304 [Apple], and 38.306 [Vivo]

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

*Including outcome of [POST123bis][21][NES] Running CR 38.331 (Huawei)*

*Including outcome of [POST123bis][22][NES] Running CR 38.321 (InterDigital) [POST123][315][NES]*

*Running CR 38.304 (Apple)*

*Contributions on open issues addressed explicitly by the email discussions 21 and 22, should be avoided*

Agreements

- NES WI is considered complete from RAN2 point of view

[R2-2311713](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311713.zip) SP-CSI reporting for network energy savings (R1-2310578; contact: Huawei) RAN1 LS in Rel-18 Netw\_Energy\_NR-Core To:RAN2

=> Noted

[R2-2311741](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311741.zip) LS on SSB-less operation for Rel-18 NES (R4-2317307; contact: Huawei) RAN4 LS in Rel-18 Netw\_Energy\_NR-Core To:RAN2 Cc:RAN1

=> Noted

[R2-2312312](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312312.zip) Running 38.304 CR - Introduction of Network energy savings for NR Apple draftCR Rel-18 38.304 17.6.0 B Netw\_Energy\_NR-Core

=> Revised in [R2-2313553](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313553.zip)

[R2-2313553](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313553.zip) Running 38.304 CR - Introduction of Network energy savings for NR Apple CR Rel-18 38.304 17.6.0 0369 - B Netw\_Energy\_NR-Core

=> Update title – remove running CR

=> The CR is endorsed

[R2-2312909](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312909.zip) Running 38.331 CR based on RAN2 agreements - Introduction of Network energy savings for NR Huawei, HiSilicon draftCR Rel-18 38.331 17.6.0 Netw\_Energy\_NR-Core

[R2-2312910](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312910.zip) Introduction of Network energy savings for NR Huawei, HiSilicon CR Rel-18 38.331 17.6.0 4453 - B Netw\_Energy\_NR-Core

=> the CR is endorsed

[R2-2312967](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312967.zip) Running CR for 38.300 NES Ericsson CR Rel-18 38.300 17.6.0 0689 5 B Netw\_Energy\_NR-Core [R2-2310947](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310947.zip)

=> The CR is endorsed

[R2-2313019](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313019.zip) Introduction of Network energy savings to TS 38.321 InterDigital CR Rel-18 38.321 17.6.0 1717 - B Netw\_Energy\_NR-Core

=> The CR is endorse

[R2-2312906](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312906.zip) Report of [POST123bis][021][NES] 38.331 Running CR (Huawei) Huawei, HiSilicon discussion Rel-18 Netw\_Energy\_NR-Core

Issue 1-14: For cell barring resolve FFS “if other NES features need to be included only if legacy impact is found”.

Rapporteur recommendation: Confirm no other features have legacy impact.

Issue 1-15: For cell barring resolve FFS “how we capture it in the CR in terms of wording”.

Rapporteur recommendation: Refer to UE capability of cell DTX/DRX.

- CATT asks if we will refer to the UE capability or do we say DTX/DRX capable UEs (like we have done in NTN)

Issue 4-2: Configuration details for the NES specific CHO execution condition, downselect from:

- Add a flag to event configuration (as in the current running CR).

- Add an “ENMUERATED {true}” to the existing MeasId list.

- CATT is concerned that the flag approach breaks the legacy rules.

- Qualcomm is concerned that UE performs the measurements when it get the RRC configuration.

=> Noted

**Agreements on RRC open issues:**

1. Confirm no other features have legacy impact (for cell selection and reselection purposes)
2. Refer to UE capability of cell DTX/DRX (NES Cell DTX/DRX)
3. Add a flag to event configuration (as in the current running CR) for NES specific CHO execution

[R2-2313020](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313020.zip) Report of [Post123bis][022][NES] 38.321 Running CR (Interdigital) InterDigital discussion Rel-18 Netw\_Energy\_NR-Core

*Proposal 1: It is up to RAN1 whether to allow partial transmission of a configured grant bundle in case a part of the bundle overlaps with cell DRX Active Period. (16/17)*

*Proposal 2: As a baseline, add the implementation in section 3.2 (*[*R2-*](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-.zip) *2313021) for the Enhanced SP CSI reporting on PUCCH Activation/Deactivation MAC CE into the TS 38.321 running CR (i.e., in sections and 6.1.3 and 5.18). (13/16)*

*Proposal 3: The following timers are not affected by activation of cell DRX/DTX. Proper configuration of these timers (i.e., to account for cell DRX and non-active period) is left to NW implementation.*

*- CG timer (12/18)*

*- CG retransmission timer (12/18)*

*- SCellDeativation timer (14/18)*

*- BWP-InactivityTimer (14/18)*

*- C-DRX timers (17/18)*

- NEC thinks that for CG timer and retx timer there still is impact. Interdigital explains that this same issue was discussed in NR-U

- LG thinks that we need to have a clear defined behaviour for the SCelldeactivation timers and BWP inactivity timer.

*Proposal 4: No new timer as a Cell DTX/DRX specific UE inactivity timer is introduced. The UE already monitors PDCCH during the non-active period when C-DRX retransmission timer is running, during RACH and when SR is pending (12/17).*

- Fraunhofer thinks that we didn’t discuss enough the problem and they have. Interdigital points out that Fraunhofer already included new option with DCI but only one company had a preference.

=> Noted

**Agreements on MAC open issues**

1. It is up to RAN1 whether to allow partial transmission of a configured grant bundle in case a part of the bundle overlaps with cell DRX Active Period
2. As a baseline, add the implementation in section 3.2 (R2- 2313021) for the Enhanced SP CSI reporting on PUCCH Activation/Deactivation MAC CE into the TS 38.321 running CR (i.e., in sections and 6.1.3 and 5.18).
3. The following timers are not affected by activation of cell DRX/DTX. Proper configuration of these timers (i.e., to account for cell DRX and non-active period) is left to NW implementation.

- CG timer

- CG retransmission timer

- SCellDeativation timer

- BWP-InactivityTimer

- C-DRX timers

1. No new timer as a Cell DTX/DRX specific UE inactivity timer is introduced. The UE already monitors PDCCH during the non-active period when C-DRX retransmission timer is running, during RACH and when SR is pending.

[R2-2313074](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313074.zip) Work plan for NR network energy savings Huawei, HiSilicon discussion Rel-18 Netw\_Energy\_NR-Core

=> Noted

[R2-2312576](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312576.zip) Open issues of NES UE capabilities vivo discussion Rel-18

*Proposal 2: A new optional UE capability (e.g. nesBasedCondHandoverWithDCI-r18) is defined to identify Rel-18 UEs supporting NES CHO execution condition based on source cell NES mode via DCI format 2\_9, and the UE indicating support of this feature shall also indicate the support of condHandover-r16.*

- Vivo indicates that some companies think it is linked to Cell DTX/DRX capability.

- Intel and Nokia indicate that RAN1 is discussing the UE capability with the new DCI bit. Apple doesn’t think RAN1 will introduce a new capability.

Proposal 3: The UE capability of nesBasedCondHandoverWithDCI-r18 is per band, no FDD-TDD DIFF, and no FR1-FR2 DIFF. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively.

*Proposal 4: A new optional UE capability (e.g. eventA4BasedCondHandoverNES-r18) is defined to identify Rel-18 UEs supporting Event A4 to be configured as a CHO execution condition, and the UE indicating support of this feature shall also indicate the support of condHandover-r16.*

-

*Proposal 5: The UE capability of eventA4BasedCondHandoverNES-r18 is per band, no FDD-TDD DIFF, and no FR1-FR2 DIFF. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively.*

UE capabilities for Cell DTX/DRX

Proposal 6: From UE capability’s perspective, the supported number of cell DTX/DRX patterns per cell group is two, regardless of each pattern is for cell DTX only, cell DRX only, or both.

Proposal 7: The granularity of the UE capability on support of cell DTX/DRX operation by RRC configuration (FG 42-4) is per band.

- BT asks if the UE support cell DTX/DRX per band and not per UE?

Proposal 8: It is up to RAN1 to decide the granularity of the UE capability on support of cell DTX/DRX activation and deactivation via DCI format 2\_9 (FG 42-5) and whether to merge FG 42-5 with FG 42-4.

=> Noted

**Agreements on RAN2 UE capabilities**

1. [CB pending RAN1 discussion on the cell on/off DCI bit] A new optional UE capability (e.g. nesBasedCondHandoverWithDCI-r18) is defined to identify Rel-18 UEs supporting NES CHO execution condition based on source cell NES mode via DCI format 2\_9, and the UE indicating support of this feature shall also indicate the support of condHandover-r16.
2. A new optional UE capability (e.g. eventA4BasedCondHandoverNES-r18) is defined to identify Rel-18 UEs supporting Event A4 to be configured as a CHO execution condition, and the UE indicating support of this feature shall also indicate the support of condHandover-r16
3. The UE capability of eventA4BasedCondHandoverNES-r18 is per band, no FDD-TDD DIFF, and no FR1-FR2 DIFF. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively
4. From UE capability’s perspective, the supported number of cell DTX/DRX patterns per cell group is two, regardless of each pattern is for cell DTX only, cell DRX only, or both (i.e. remove the FFS)
5. [CB pending RAN1 agreement] The granularity of the UE capability on support of cell DTX/DRX operation by RRC configuration (FG 42-4) is per band.

[R2-2312577](file:///C:\\Users\\panidx\\OneDrive%20-%20InterDigital%20Communications,%20Inc\\Documents\\3GPP%20RAN\\TSGR2_124\\Docs\\R2-2312577.zip) Introduction of NES UE capabilities to 38306 vivo CR Rel-18 38.306 17.6.0 0990 - B Netw\_Energy\_NR-Core

=> The CR is endorsed

[R2-2312578](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312578.zip) Introduction of NES UE capabilities to 38331 vivo CR Rel-18 38.331 17.6.0 4434 - B Netw\_Energy\_NR-Core

=> The CR is endorsed

* [AT124][002][NES] Running UE capability CRs (Vivo)

Intended outcome: Review update to R2-2312577 and R2-2312578 capturing only RAN2 specific UE capability agreements (i.e. eventA4BasedCondHandoverNES-r18)

Deadline: Thursday 11-17-2023

### 7.3.2 DTX/DRX mechanism

**MAC Issue 1:** whether to confirm the WA:

[R2-2313155](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313155.zip) Remaining issues on DTX and DRX mechanism LG Electronics Inc. discussion Rel-18 Netw\_Energy\_NR-Core

Proposal 1. Confirm the following working assumption: UE triggers RACH upon determining that an emergency call is initiated during the cell DTX/DRX non active period. We rely on the UE implementation to determine whether an emergency call is initiated.

Proposal 2. Add an emergency call initiation when cell DTX/DRX is activated and cell DTX/DRX is not in the cell DTX/DRX active period to the list of events for triggering the random access procedure.

=> Noted

[R2-2312313](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312313.zip) Remaining issues on Cell DTX / DRX Apple discussion Rel-18 Netw\_Energy\_NR-Core

Proposal 2: Confirm the WA on emergency call triggered RACH. In running MAC CR, capture a NOTE similar to section 5.3.13.2 of TS 38.331 (i.e., “NOTE: How the MAC layer in the UE is aware of an ongoing emergency service is up to UE implementation.”)

=> Noted

**MAC Issue 2:** whether the UE monitors PDCCH during the non-active period following successful RA completion:

[R2-2312313](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312313.zip) Remaining issues on Cell DTX / DRX Apple discussion Rel-18 Netw\_Energy\_NR-Core

*Proposal 3: No need to explicitly specify that the UE keeps monitoring PDCCH for followed transmission after successful completion of RA, i.e., it is left to NW implementation to complete followed transmission (e.g., emergency call) after RA (e.g., initiate followed transmission when the retransmission timer is running).*

- Qualcomm thinks it is technically correct but the retx timer would have to be very long for this to work.

- LG thinks that the timer will only run if the decoding fails. Assigning a long retx value is not good just for that purpose.

=> Noted

[R2-2312526](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312526.zip) Remaining issues on Cell DTX/DRX Fujitsu discussion Rel-18 Netw\_Energy\_NR-Core

*Proposal 7: The UE needs to monitor PDCCH between RACH completion for an emergency call and the start of the next Cell DTX active period.*

=> Noted

[R2-2312951](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312951.zip) Cell DTX-DRX Mechanism Qualcomm Incorporated discussion Rel-18

*Proposal 5: UE implicitly deactivates Cell DTX/DRX configuration after RACH on a serving cell.*

- LG is concerned that only the UE that triggered the RACH knows about the implicit deactivation.

=> Noted

*Discussion*

- LG supports the Fujitsu proposal. Fraunhofer agrees as well and leaving it up to UE implementation is error prone.

- CATT thinks that this is a rare event. The gNB knows that the UE is doing emergency call and it can rely on the retx timer.

- Oppo thinks that we can leave it up to the gNB implementation. Samsung thinks that gNB implementation can handle it.

- Lenovo thinks that we shouldn’t make too many exceptions for this case, the gNB can schedule in DL after msg3.

**MAC Issue 3:** Monitoring NES-RNTI (new DCI 2-9) during non active period vs. only in C-DRX Active Time:

[R2-2312907](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312907.zip) Discussion on remaining issues of cell DTX and DRX Huawei, HiSilicon discussion Rel-18 Netw\_Energy\_NR-Core

*Proposal 5: RAN2 to wait for RAN1’s progress on NES-RNTI monitoring and implement the impact in TS 38.321 after receiving RAN1’s conclusion.*

=> Noted

[R2-2312579](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312579.zip) Discussion on the remaining issues of cell DTX-DRX vivo discussion Rel-18

*Proposal 3: The NW only schedules PDCCH scrambled by NES-RNTI in the C-DRX active time, and the UE only monitors PDCCH scrambled by NES-RNTI in the C-DRX active time.*

=> Noted

*Discussion*

- Lenovo thinks that we should discuss it in RAN2 and go with Vivo’s proposal. Mediatek agrees and in 5.7 section it is clearly specified. The NES case is different from paging case.

- Nokia thinks that from NW perspective we don’t want to align with the UE’s active time. It would be difficult to configure the search space with the UE active time. Vodafone has sympathy for Nokia’s concern and with the common signaling we should be able to reach all the UEs. ZTE also shares the same understanding as Nokia

- CATT thinks that RAN1 should discuss

- Apple thinks that this is a RAN2 feature. QC also supports vivo’s proposal.

- Interdigital indicates that RAN1 has now agreed that NES-RNTI is monitored during C-DRX active time and no agreement on inactive time.

- Nokia explains that it is common search space now RAN2 can decide and monitor all the time

- Samsung explains that it would be difficult for the UE to catch to search space during the active time.

- Mediatek thinks that if we monitor all the time it could conflict with RAN1

- Xiaomi thinks that TPC is group common and it is during C-DRX so this is similar. Oppo, Nokia and ZTE doesn’t think this is similar as DTX/DRX is common to all UEs.

- Oppo thinks that the UE should monitor no matter if DTX/DRX is active or inactive

- Qualcomm thinks that we should only monitor during active time.

- Lenovo thinks that cell DTX/DRX is mainly for low load so it is not very painful for the network. Nokia indicates that this is cell specific not group specific. ZTE also thinks that this is cell specific and if we need to take care of all C-DRX of UE this may not work.

- Fraunhofer says that this depends on whether the DTX/DRX is activated or not. When deactivated the c-drx of UEs is scatterd but when activated it is aligned.

- Vodafone asks if we can make it configurable.

- Apple doesn’t want to touch the legacy feature and this impacts the legacy C-DRX as now the UE has to monitor during inactive time. Samsung indicates that for some TPC-PUCCH-RNTI, SI-RNTI we always monitor even during inactive, so there is not much difference that legacy.

- CATT thinks that there are pains on both sides, but for the UE the impact is greater as the UE has to monitor all the time. Intel agrees with CATT and we don’t want to sacrifice the power of UE to wake up unnecessarily.

**RRC Issue 1-13:** Whether Cell DRX can be configured without C-DRX:

[R2-2312586](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312586.zip) Discussion on DTX/DRX mechanism OPPO discussion Rel-18 Netw\_Energy\_NR

*Proposal 3 No need to restrict that the cell DRX is only configured when C-DRX is configured.*

- Huawei agrees with the proposal

=> Noted

**Agreements**

1. Confirm WA emergency call: UE triggers RACH upon determining that an emergency call is initiated during the cell DTX/DRX non active period
2. In running MAC CR, capture a NOTE similar to section 5.3.13.2 of TS 38.331 (i.e., “NOTE: How the MAC layer in the UE is aware of an ongoing emergency service is up to UE implementation.”)
3. No need to explicitly specify that the UE keeps monitoring PDCCH for followed transmission after successful completion of RA, i.e., it is left to NW implementation to complete followed transmission (e.g., emergency call) after RA (e.g., initiate followed transmission when the retransmission timer is running)
4. No need to restrict that the cell DRX is only configured when C-DRX is configured
5. Adopt the TP to capture the RAN2 requirement “UE doesn’t monitor PDCCH for dynamic grants/assignments for new transmissions during Cell DTX non-active period, even if the UE is in C-DRX Active time”.

For each Serving Cell configured with cell DTX and each configured downlink assignment, the MAC entity may:

1. if cell DTX operation is activated and the Serving Cell is not in the cell DTX Active Period:
2. not monitor PDCCH irrespective of the requirements of clause 5.7, unless explicitly stated otherwise in this clause;

**Other issues:**

**PDCCH monitoring:**  
[R2-2313251](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313251.zip) Remaining issues on Cell DTX and DRX mechanism CATT discussion Rel-18 FS\_Netw\_Energy\_NR

*Proposal 1: Adopt the TP to capture the RAN2 requirement “UE doesn’t monitor PDCCH for dynamic grants/assignments for new transmissions during Cell DTX non-active period, even if the UE is in C-DRX Active time”.*

*For each Serving Cell configured with cell DTX and each configured downlink assignment, the MAC entity may:*

*1> if cell DTX operation is activated and the Serving Cell is not in the cell DTX Active Period:*

*2> not monitor PDCCH irrespective of the requirements of clause 5.7, unless explicitly stated otherwise in this clause;*

- InterDigital, Huawei and Lenovo think we need to specify this.

=> Noted

**C-DRX alignment**

[R2-2312951](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_124\\Docs\\R2-2312951.zip) Cell DTX-DRX Mechanism Qualcomm Incorporated discussion Rel-18

Proposal 1: RAN2 to discuss the following two options on ON-duration alignment between Cell DTX patterns:

Option 1: ON duration is common for all serving cell DTX patterns in the same frequency range.

Option 2: ON duration is common for all serving cell DTX patterns in the same frequency band.

- ZTE and Nokia thinks that no further restrictions are needed. Qualcomm thinks that this additional flexibility is of very little use for NW but for UE this has big impacts as they have to vary search space decoding every slot. Fraunhofer would prefer option 2, but we can do multiple of each other and we would avoid the problem.

- Vivo also shares the same view as Qualcomm and would prefer option 1 but is ok with option 2 to simplify UE implementation. Xiaomi prefers option 1.

- Vodafone doesn’t understand why the configuration would be that different and doesn’t understand the benefit from having different on durations.

- Samsun ghtinks that we could different durations for different sub-carrier spacing.

- Interdigital indicates that we agreed to align by multiple of each other the periodicity, the start and slot offset

- Nokia doesn’t understand why this PDCCH monitoring is a problem since the UE has to monitor the PDCCH for serving cell anyways without DTX/DRX

=> Noted

**Multicast during non-active period**

[R2-2311828](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311828.zip) Remaining issues for Cell DTX\_DRX Samsung Electronics Co., Ltd discussion Rel-18 Netw\_Energy\_NR-Core

*Proposal 4: UE does not monitor PDCCH addressed to G-RNTI and G-CS-RNTI during the Cell DTX non-active period.*

*Proposal 5: UE does not receive multicast SPS during the Cell DRX non-active period.*

=> Noted

[R2-2311779](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311779.zip) Coexistence of cell DTX and MBS service Xiaomi discussion Rel-18

Proposal 1: RAN2 is kindly asked to confirm broadcast MBS reception when cell DTX is activated.

=> Noted

**Agreements**

1. We will not optimize for the case where DTX/DRX is activated simultaneously with multicast/broadcast

[R2-2311779](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311779.zip) Coexistence of cell DTX and MBS service Xiaomi discussion Rel-18

[R2-2311828](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311828.zip) Remaining issues for Cell DTX\_DRX Samsung Electronics Co., Ltd discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2312038](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312038.zip) Remaining issues of Cell-DTX/DRX NEC discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2312206](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312206.zip) Remaining issues on cell DTX/DRX ZTE Corporation, Sanechips discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2312224](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312224.zip) Remaining issues on Cell DTX/DRX Nokia, Nokia Shanghai Bell discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2312313](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312313.zip) Remaining issues on Cell DTX / DRX Apple discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2312526](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312526.zip) Remaining issues on Cell DTX/DRX Fujitsu discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2312542](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312542.zip) Remaining alignment aspects Lenovo discussion

[R2-2312579](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312579.zip) Discussion on the remaining issues of cell DTX-DRX vivo discussion Rel-18

[R2-2312586](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312586.zip) Discussion on DTX/DRX mechanism OPPO discussion Rel-18 Netw\_Energy\_NR

[R2-2312907](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312907.zip) Discussion on remaining issues of cell DTX and DRX Huawei, HiSilicon discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2312947](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312947.zip) CGT and CGRT timers for Cell DTX/DRX NEC Telecom MODUS Ltd. discussion

[R2-2312951](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312951.zip) Cell DTX-DRX Mechanism Qualcomm Incorporated discussion Rel-18

[R2-2312968](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312968.zip) Open issues for NW DTX-DRX Ericsson discussion

[R2-2313015](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313015.zip) Remaining issues on Cell DTX/DRX InterDigital discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2313155](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313155.zip) Remaining issues on DTX and DRX mechanism LG Electronics Inc. discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2313251](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313251.zip) Remaining issues on Cell DTX and DRX mechanism CATT discussion Rel-18 FS\_Netw\_Energy\_NR

[R2-2313359](file:///C:\\Users\\panidx\\OneDrive%20-%20InterDigital%20Communications,%20Inc\\Documents\\3GPP%20RAN\\TSGR2_124\\Docs\\R2-2313359.zip) Cell DTX/DRX NES Techniques CEWiT discussion

[R2-2313441](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313441.zip) Discussion on Cell DTX/DRX NES III discussion

[R2-2313453](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313453.zip) Open issues of Cell DTX and DRX mechanism MediaTek Inc. discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2313535](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313535.zip) Key open issues on Cell DTX/DRX Fraunhofer IIS, Fraunhofer HHI discussion Rel-18

### 7.3.3 SSB-less Scell operation

Contributions on inter-band CA for FR1 and co-located cells

**Issue 2-1: SSB-less SCell operation impact on the RRC specification.**

**Issue 2-2: Implementation of indication from NW to UE to indicate which cell (e.g., PCI, SSB frequency, etc.) is the reference cell.**

[R2-2312580](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312580.zip) RAN2 impact on supporting inter-band SSB-less Scell operation vivo discussion Rel-18

Proposal 1: Serving cell index can be configured by the network to indicate UE the reference cell for obtaining the timing and AGC reference for inter-band SSB-less SCell.

[R2-2312969](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312969.zip) SSB-less SCell operation on inter-band CA for FR1 Ericsson discussion

Proposal 1 A new field (i.e., ServCellIndex) is included in FrequencyInfoDL IE to indicate the reference cell for an inter-band SSB-less SCell.

[R2-2312207](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312207.zip) Consideration on supporting SSB-less SCell operation for NES ZTE Corporation, Sanechips discussion Rel-18 Netw\_Energy\_NR-Core

Proposal 3: For an inter-frequency SSB-less SCell, if the referenceCell is not indicated, UE obtains timing reference from the default cell, which will be defined and specified by RAN4.

**SSB-Less SCell Activation Mechanism**

[R2-2311782](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311782.zip) Discussion on inter-band SSB-less SCell Xiaomi discussion Rel-18

*Proposal 2: The TRS for fast SCell activation in R17 can be reused for R18 inter-band SSB-less SCell, including TRS configuration and Enhanced SCell Activation/Deactivation MAC CEs for TRS activation.*

- Xiaomi thinks that there are differences

=> Noted

[R2-2312952](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312952.zip) Interband SSB-less CA Qualcomm Incorporated discussion Rel-18

Proposal 3: No new (de)activation mechanisms are introduced by RAN2 for the SSB-less cell.

**Agreements**:

- Serving cell index can be configured by the network to indicate UE the reference cell. A new field (i.e., ServCellIndex) is included in FrequencyInfoDL IE to indicate the reference cell for an inter-band SSB-less SCell

- No new (de)activation mechanisms are introduced by RAN2 for the SSB-less cell

- Update the field descriptions of absoluteFrequencySSB to include the inter-band case.

**UE Capability for SSB-less Inter-band SCell**

[R2-2311782](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311782.zip) Discussion on inter-band SSB-less SCell Xiaomi discussion Rel-18

Proposal 11: Compared with UE capability scellWithoutSSB, one separate UE capability for inter-band SSB-less SCell is introduced. The details of the new UE capability for inter-band SSB-less SCell are up to RAN4, i.e., one bit indicator per UE or per BC.

[R2-2313077](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313077.zip) Discussion on SSB-less SCell operation Huawei, HiSilicon discussion Rel-18 Netw\_Energy\_NR-Core

Proposal 3: Introduce two new UE capabilities for indicating the support of inter-band SSB-less SCell operation and the support of CSI-RSRP and CSI-RSRQ measurement for inter-band SSB-less SCell.

Proposal 2: Update the field descriptions of absoluteFrequencySSB to include the inter-band case.

[R2-2311782](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311782.zip) Discussion on inter-band SSB-less SCell Xiaomi discussion Rel-18

[R2-2311985](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311985.zip) Discussions on SSB-less Scell operation KDDI Corporation discussion

[R2-2312207](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312207.zip) Consideration on supporting SSB-less SCell operation for NES ZTE Corporation, Sanechips discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2312314](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312314.zip) Remaining issues on inter-band SSB-less CA Apple discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2312397](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312397.zip) Discussion on SSB-less SCell operation FGI discussion

[R2-2312478](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312478.zip) Discuss on SSB-less SCell operation in NES Lenovo discussion Rel-18

[R2-2312580](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312580.zip) RAN2 impact on supporting inter-band SSB-less Scell operation vivo discussion Rel-18

[R2-2312587](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312587.zip) Discussion on SSB-less Scell operation OPPO discussion Rel-18 Netw\_Energy\_NR

[R2-2312739](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312739.zip) Timing reference for SCell without associated SSB Nokia, Nokia Shanghai Bell discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2312952](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312952.zip) Interband SSB-less CA Qualcomm Incorporated discussion Rel-18

[R2-2312969](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312969.zip) SSB-less SCell operation on inter-band CA for FR1 Ericsson discussion

[R2-2313017](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313017.zip) SSB-less Scell operation InterDigital discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2313077](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313077.zip) Discussion on SSB-less SCell operation Huawei, HiSilicon discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2313252](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313252.zip) Enhancements on SSB-less SCell operation CATT, Turkcell discussion Rel-18 FS\_Netw\_Energy\_NR

### 7.3.4 Cell selection/re-selection

Contributions mechanisms to prevent legacy UEs camping on cells adopting the Rel-18 NES mode

**Issue 1-14: For cell barring resolve FFS “if other NES features need to be included only if legacy impact is found”.**

**Rapporteur recommendation: Confirm no other features have legacy impact.**

**Issue 1-15: For cell barring resolve FFS “how we capture it in the CR in terms of wording”.**

**Rapporteur recommendation: Refer to UE capability of cell DTX/DRX.**

[R2-2312970](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312970.zip) Remaining aspects for NES Cell selection/reselection Ericsson discussion

Proposal 1 A NES-capable UE in the cell barring context is a UE supporting cell DTX/DRX. No impact to legacy is expected from other NES features.

Proposal 2 Capture NES-capable UE in specifications in the context of cell barring as “a UE supporting cell DTX or cell DRX”.

[R2-2312208](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312208.zip) Consideration on cell access restrictions for NES ZTE Corporation, Sanechips discussion Rel-18 Netw\_Energy\_NR-Core

Proposal 2: RAN2 can confirm that a UE may support NES feature, RedCap feature and even NTN feature.

[R2-2312315](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312315.zip) Remaining issues on legacy UE barring in NES Apple discussion Rel-18 Netw\_Energy\_NR-Core

Proposal 3: NES capable UE don’t support NTN because their target use cases are different.

Proposal 4: At least in Rel-18, NES capable UE don’t support Redcap because of extra specification work beyond UE barring mechanism.

[R2-2312315](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312315.zip) Remaining issues on legacy UE barring in NES Apple discussion Rel-18 Netw\_Energy\_NR-Core

*Proposal 3: NES capable UE don’t support NTN because their target use cases are different.*

*Proposal 4: At least in Rel-18, NES capable UE don’t support Redcap because of extra specification work beyond UE barring mechanism.*

- BT agrees with 3 but not with 4 and it is not that complex. Vodafone doesn’t think that proposal 4 works.

=> Noted

**Agreements:**

- RAN2 will not optimize or study NES capable UE and NTN

[R2-2311778](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311778.zip) False paging reduction in NES cell Xiaomi discussion Rel-18

[R2-2312208](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312208.zip) Consideration on cell access restrictions for NES ZTE Corporation, Sanechips discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2312289](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312289.zip) Discussion on Cell Selection and Reselection for NES Samsung discussion Rel-18

[R2-2312970](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312970.zip) Remaining aspects for NES Cell selection/reselection Ericsson discussion

[R2-2313253](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313253.zip) Consideration on Cell Selection/Re-selection on NES cells CATT discussion Rel-18 FS\_Netw\_Energy\_NR

[R2-2313308](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313308.zip) Resolving open issues for idle mode LG Electronics discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2313318](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313318.zip) Remaining issues on cell selection NTT DOCOMO INC.. discussion Rel-18 Netw\_Energy\_NR-Core

### 7.3.5 Connected mode mobility

Contributions on CHO procedure enhancement(s) in case source/target cell is in NES mode

**Issue 4-2: Configuration details for the NES specific CHO execution condition, downselect from:**

* **Add a flag to event configuration (as in the current running CR).**
* **Add an “ENMUERATED {true}” to the existing MeasId list.**

**CHO Configuration Details**

[R2-2312316](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312316.zip) Remaining issues on NES CHO enhancement Apple discussion Rel-18 Netw\_Energy\_NR-Core

Proposal 1: RAN2 confirm that the UE can be configured with 1 NES-CHO event + 1 normal CHO event.

Proposal 3: On configuration details for the NES specific CHO execution condition, RAN2 adopt the option of “add a flag to event configuration (as in the current running CR)”.

[R2-2312588](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312588.zip) Discussion on connected mode mobility OPPO discussion Rel-18 Netw\_Energy\_NR

*Proposal 2 If one condReconfigId is configured with both the legacy and NES-specific CHO execution events, the UE triggers CHO execution as long as one of the events is fulfilled.*

[R2-2312527](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312527.zip) Remaining issues on Connected mode mobility for NES Fujitsu discussion Rel-18 Netw\_Energy\_NR-Core

Proposal 2: It is allowed that 2 MeasIds configured for CondReconfigId can be used for the NES specific CHO events.

Observation 3: The UE behavior is not clear when an additional one bit received in L1 signalling indicates disable of NES CHO.

Proposal 5: The UE will consider all NES specific CHO event(s) is not fulfilled when disable of NES CHO is received from the lower layers. Confirm this by the final L1 signalling design.

**Agreements:**

1. Proposal 2 If one condReconfigId is configured with one legacy and one NES-specific CHO execution events, the UE triggers CHO execution as long as one of the events is fulfilled.

[R2-2311780](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311780.zip) Discussion on NES in SCG Xiaomi discussion Rel-18 Withdrawn

[R2-2312172](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312172.zip) Configuration of NES specific CHO condition NEC discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2312290](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312290.zip) Discussion on Connected mode mobility for NES Samsung discussion Rel-18

[R2-2312316](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312316.zip) Remaining issues on NES CHO enhancement Apple discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2312527](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312527.zip) Remaining issues on Connected mode mobility for NES Fujitsu discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2312533](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312533.zip) Discussion on CHO for NES Ericsson discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2312543](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312543.zip) Additional bit in DCI 2-9 Lenovo discussion Netw\_Energy\_NR-Core Revised

[R2-2312581](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312581.zip) Discussion on the remaining issues of NES based CHO vivo discussion Rel-18

[R2-2312588](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312588.zip) Discussion on connected mode mobility OPPO discussion Rel-18 Netw\_Energy\_NR

[R2-2312953](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312953.zip) NES Connected mode mobility Qualcomm Incorporated discussion Rel-18

[R2-2313016](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313016.zip) CHO for NES InterDigital discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2313075](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313075.zip) Discussion on CHO enhancement for NES Huawei, HiSilicon, Turkcell discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2313083](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313083.zip) Discussion on CHO enhancements for NES Sharp discussion

[R2-2313254](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313254.zip) CHO procedure enhancements CATT,Turkcell other Rel-18 FS\_Netw\_Energy\_NR

[R2-2313448](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313448.zip) Additional bit in DCI 2-9 Lenovo discussion Netw\_Energy\_NR-Core [R2-2312543](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312543.zip) Revised

[R2-2313478](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313478.zip) Open issues for CHO enhancement LG Electronics Inc. discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2313479](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313479.zip) Additional bit in DCI 2-9 Lenovo discussion Netw\_Energy\_NR-Core [R2-2313448](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313448.zip) Late

Proposal 1: No (additional) trigger for handover execution is used. Handover execution is only dependent on activation of NES mode (using “original bit” of DCI 2-9) and UE having at least one triggering cell.

Proposal 2: Measurement/ measurement evaluation in the UE start with the reception of (NES) CHO reconfiguration and therefore the additional bit is not required to trigger measurement/ evaluation.

*Proposal 3a: If the additional bit in DCI 2-9 is to indicate cell switch-off, Network provides a grace period for the cell switch-off based NES.*

*Proposal 3b: If the additional bit in DCI 2-9 is to indicate cell switch-off, a NES UE configured with CHO, upon receiving Cell switch-off indication in DCI 2-9, shall i) continue on source cell normally until grace period ends; and ii) continue measurement and if no triggered cell available at the end of the grace period, select best available candidate.*

- Vodafone thinks that the network should provide a time of when it will switch off in RRC configuration only.

- Qualcomm thinks the work is complete, the UE doesn’t understand what the event means, it just knows it should start CHO. Huawei, InterDigital agrees with Qualcomm and it should just execute. Also we agreed to not introduce the time based mechanism.

- CATT supports a time base switch off in RRC and the L1 signaling is not needed at all. Nokia explains that L1 indication is immediate.

- BT asks what happens if the UE needs gaps and it receives this indication.

- Qualcomm thinks that this is a new solution and we already have a working specs.

- Vodafone thinks that solution is just to give the timer to UE to indicate when the cell will switch off but it is not forcing the UE to do anything, the UE can ignore it.

- Ericsson thinks a timer would be useful. Apple doesn’t think this is needed.

=> Common understanding is that L1 signalling is not triggering new measurements

*Proposal 3c: If the additional bit in DCI 2-9 is to indicate cell switch-off, a NES UE not configured with CHO, upon receiving Cell switch-off indication in DCI 2-9, shall i) continue on source cell normally until grace period ends; and ii) perform cell selection in parallel and attempt a re-establishment.*

- Nokia and Samsung would like the UE to move to another cell if CHO is not done and it would impact service and it doesn’t make sense to wait for all counters to expire. Vodafone thinks that we cans consider the CHO threshold in a way that this doesn’t happen.

Alternative Proposal 3: The “original bit” in DCI 2-9 is sufficient in release 18. [A TP is available in the annex.]

[R2-2313493](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313493.zip) CHO on NES Nokia, Nokia Shanghai Bell discussion Rel-18 FS\_Netw\_Energy\_NR

### 7.3.6 Others

This will be downprioritized

**MAC Issue 4:** whether legacy MAC CE for SP CSI reporting on PUCCH Activation/Deactivation can be received when at least one CSI report is configured with csi-ReportSubConfigList

**Possible**

[R2-2313076](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313076.zip) Discussion on SP-CSI reporting for network energy savings Huawei, HiSilicon discussion Rel-18 Netw\_Energy\_NR-Core

*Proposal 1: The legacy MAC CE can be used to trigger SP CSI reporting activation/deactivation when UE is configured with sub-configuration(s) in a CSI report configuration, and in this case the sub-configuration(s) is considered deactivated.*

[R2-2311781](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311781.zip) Discussion on sub-configuration for power adaption and spatial adaption Xiaomi discussion Rel-18

Proposal 1: If sub-configurations for SP CSI report are configured, the UE is allowed to receive the legacy SP CSI reporting on PUCCH Activation/Deactivation MAC CE at least for no sub-configuration activation case, i.e., only CSI-reports without Sub-configurtaion are activated.

Proposal 2b: If legacy SP CSI reporting on PUCCH Activation/Deactivation MAC CE is received, it means sub-configurations for new activated SP CSI report are not activated. For the already activated CSI report with sub-configuration activation will be kept activated.

*Discussion*

- Ericsson asks if RAN1 actually supports this case and RAN1 will not consider this. Xiaomi indicates that RAN1 already agreed that there are some configuration without sub-configuration.

- Apple and Qualcomm agrees with Ericsson. Qualcomm confirmed the RAN1 understanding it is either or.

- Nokia thinks that if we are activiating a configuration without sub-config we should be able to use a legacy MAC CE.

- LG assumes that they can be used together and in that case only one format is used, in that case only new MAC CE can act/deactivate. Using of the MAC CE is only dependent on the configuration.

- Samsung things that legacy MAC CE can be used to configure and it would be much better to use legacy.

**Agreements**

1. Legacy MAC CE can be used when activating only configuration without sub-configuration and when gNB is de-activating all sub-configurations.

**Not possible**

[R2-2312313](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312313.zip) Remaining issues on Cell DTX / DRX Apple discussion Rel-18 Netw\_Energy\_NR-Core

Proposal 5: RAN2 clarify that when at least one CSI report is configured with csi-ReportSubConfigList for the concerned serving cell id and BWP ID, the legacy MAC CE for SP CSI reporting on PUCCH Activation/Deactivation is NOT expected to be received.

[R2-2313155](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313155.zip) Remaining issues on DTX and DRX mechanism LG Electronics Inc. discussion Rel-18 Netw\_Energy\_NR-Core

Proposal 4. The legacy MAC CE for SP CSI reporting on PUCCH is not expected to be received when at least one CSI report configured with *csi-ReportSubConfigList* is activated.

Proposal 5. Discuss whether the legacy MAC CE for SP CSI reporting on PUCCH is can be used or not when no CSI report configured with csi-ReportSubConfigList is activated.

[R2-2311781](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311781.zip) Discussion on sub-configuration for power adaption and spatial adaption Xiaomi discussion Rel-18

[R2-2312209](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312209.zip) SP CSI reporting on PUCCH Activation MAC CE ZTE Corporation, Sanechips discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2312582](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312582.zip) Discussion on the remaining issues of power domain and spatial domain NES features vivo discussion Rel-18

[R2-2313021](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313021.zip) SP CSI reporting on PUCCH Activation MAC CE InterDigital discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2313076](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313076.zip) Discussion on SP-CSI reporting for network energy savings Huawei, HiSilicon discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2313327](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313327.zip) Discussion on Enhanced SP CSI Reporting on PUCCH Activation/Deactivation MAC CE Samsung discussion Rel-18 Netw\_Energy\_NR-Core

[R2-2313492](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313492.zip) MAC CE for SP CSI reporting on PUCCH Nokia, Nokia Shanghai Bell discussion Rel-18 FS\_Netw\_Energy\_NR

## 7.4 Further NR mobility enhancements

(NR\_Mob\_enh2-Core; leading WG: RAN2; REL-18; WID: [RP-223520](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_98e/Docs/RP-223520.zip))

Time budget: 2 TU

Tdoc Limitation: 6 tdocs .

Running CR rapporteurs are encouraged to actively drive CR progress (can e.g. suggest to chair how to treat).

### 7.4.1 Organizational Stage-2 and UE caps

Including LSs and any rapporteur inputs (e.g. work plan, Running CRs common for the sub-objectives). Including performance impacts, e.g. for LTM and potential elaboration on the components of the LTM latency time line, if needed. Including impacts to and expectations of other groups.

Including impacts to 38300 and 37340 and related stage-2 centric open issues.

Including outcome of [Post123bis][557][feMob] 37340 CR (ZTE)

Including RAN1, RAN2, and RAN4 features corresponding UE caps (impact to 38306 and corresponding signalling 38331) and related open issues.

Including outcome of [Post123bis][564][feMob] UE capabilites (Intel)

Including oter issues, if any

Focus this meeting on closing open issues and getting the CRs in good shape.

[R2-2311742](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311742.zip) Reply LS on beam application time for LTM (R4-2317331; contact: Ericsson) RAN4 LS in Rel-18 NR\_Mob\_enh2-Core To:RAN1, RAN2 Cc:RAN3

[R2-2311749](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311749.zip) LS on improvement on FR2 SCell/SCG setup delay (R4-2317428; contact: Nokia) RAN4 LS in Rel-18 NR\_Mob\_enh2 To:RAN2

[R2-2312151](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312151.zip) 38.306 running draftCR for introduction of NR further mobility enhancements Intel Corporation draftCR Rel-18 38.306 17.6.0 NR\_Mob\_enh2-Core

[R2-2312152](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312152.zip) 38.331 running draftCR for introduction of NR further mobility enhancements Intel Corporation draftCR Rel-18 38.331 17.6.0 NR\_Mob\_enh2-Core

[R2-2312153](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312153.zip) Discussion and TP on L2/3 UE capabilities for NR further mobility enhancements Intel Corporation discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312235](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312235.zip) 37.340 running CR for introduction of NR further mobility enhancements ZTE Corporation, Sanechips draftCR Rel-18 37.340 17.6.0 B NR\_Mob\_enh2-Core

[R2-2312236](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312236.zip) Stage-2 TP for SCG LTM procedure ZTE Corporation, Sanechips discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312504](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312504.zip) UE Capability for LTM MediaTek Inc. discussion Rel-18 NR\_Mob\_enh2

[R2-2312720](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312720.zip) 38.300 running CR for introduction of NR further mobility enhancements MediaTek Inc., vivo draftCR Rel-18 38.300 17.6.0 B NR\_Mob\_enh2-Core

[R2-2312985](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312985.zip) Introduction of further NR mobility enhancements Ericsson, OPPO, CATT CR Rel-18 38.331 17.6.0 4458 - B NR\_Mob\_enh2-Core

[R2-2312986](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312986.zip) Open issues and resolution proposals on the RRC merging issues Ericsson discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312987](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312987.zip) RRC open issues list Ericsson discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2313521](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313521.zip) LTM UE capabilities, LTM cross-WI combinations and EMR scope Huawei, HiSilicon discussion Rel-18 NR\_Mob\_enh2-Core

### 7.4.2 L1L2 Triggered Mobility

#### 7.4.2.1 Control Plane and RRC

(WID: Configuration and maintenance for multiple candidate cells to allow fast application of configurations for candidate cells [RAN2, RAN3]).   
General LTM discussions (incl all aspects), if needed. RRC impact and solutions, stage-3 oriented: companies are encouraged to illustrate proposals by Text Proposals. Including the RRC LTM running CR 38331 and related open issues.

Including   
1) R2 centric issues : LTM config and execution (candidate + ref, applying complete config) etc  
2) R1-centric issues: e.g. reflecting RRC parameters (CSI, TCI, TA) from RAN1, and decision on the two options on CSI report provided by RAN1.

Including the LTM RRC Running CR. Focus this meeting on closing open issues and getting the CRs in good shape.

[R2-2311818](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311818.zip) Remaining issues for SCG LTM NEC discussion NR\_Mob\_enh2-Core

[R2-2311819](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311819.zip) Failure Handling for LTM NEC discussion NR\_Mob\_enh2-Core

[R2-2311890](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311890.zip) Fast cell recovery aspects for LTM failures Panasonic discussion Rel-18

[R2-2311899](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311899.zip) Discussion on RRC open issues for LTM vivo discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2311935](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311935.zip) Discussion on co-existence of LTM and CHO fast recovery NTT DOCOMO, INC. discussion Rel-18 Withdrawn

[R2-2312000](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312000.zip) Co-existence between LTM and other features Fujitsu discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312042](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312042.zip) Discussion on RRC aspects for LTM CATT discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312131](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312131.zip) Configuration of UE based TA determination for RACH-less LTM Futurewei discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312213](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312213.zip) RRC configuration aspects for LTM Qualcomm Incorporated discussion

[R2-2312214](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312214.zip) RRC-related LTM procedures Qualcomm Incorporated discussion

[R2-2312223](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312223.zip) Discussion on co-existence of LTM and CHO fast recovery NTT DOCOMO, INC. discussion Rel-18

[R2-2312237](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312237.zip) Remaining issues on LTM RRC ZTE Corporation, Sanechips discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312357](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312357.zip) RSTD based early TA acquisition Apple discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312358](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312358.zip) LTM procedure completion at the UE in SCG Apple discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312373](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312373.zip) Consideration on co-existence of LTM and CHO Samsung discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312404](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312404.zip) Views on RACH-less fast recovery KDDI Corporation discussion NR\_Mob\_enh2-Core [R2-2309713](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2309713.zip)

[R2-2312420](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312420.zip) Discussion on RRC open issues LG Electronics discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312421](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312421.zip) Discussion on SCG LTM and other LG Electronics discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312480](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312480.zip) Discussion on UE measured TA ID and No reset ID Lenovo discussion Rel-18

[R2-2312481](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312481.zip) Analysis on SCG LTM Lenovo discussion Rel-18

[R2-2312491](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312491.zip) Discussion on SCG LTM OPPO discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312493](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312493.zip) Discussion on cross-feature issues for LTM OPPO discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312501](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312501.zip) Remaining issues for RRC Aspects of LTM Sharp discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312505](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312505.zip) TCI State Handling in LTM MediaTek Inc. discussion Rel-18 NR\_Mob\_enh2

[R2-2312544](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312544.zip) Issues with Timer T304 handling (including TP) Lenovo discussion NR\_Mob\_enh2-Core

[R2-2312628](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312628.zip) Handling of configured grant for LTM cell switch Transsion Holdings discussion Rel-18

[R2-2312679](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312679.zip) Considerations on LTM open issues CMCC discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312680](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312680.zip) Discussions on LTM related measurements CMCC discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312875](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312875.zip) Coexistence of LTM and L3M/CHO Interdigital, Inc. discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312876](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312876.zip) Fast RLF for LTM execution Interdigital, Inc. discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312916](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312916.zip) Discussion on RRC aspects of LTM Samsung discussion

[R2-2312988](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312988.zip) Discussion of remaining RRC open issues for LTM Ericsson discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312989](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312989.zip) Co-existence of LTM with other mobility features Ericsson discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2313048](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313048.zip) On RRC Aspects of LTM and L3 Mobility Interworking Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2313167](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313167.zip) RRC open issues for LTM Xiaomi discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2313187](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313187.zip) Discussion on LTM candidate configuration for different CGs ASUSTeK discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2313310](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313310.zip) Keystream reuse issue caused by fast recovery after LTM cell switch Fujitsu, CATT discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2313311](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313311.zip) Radio bearer release/add upon LTM cell switch procedure Fujitsu discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2313312](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313312.zip) L3 handover with LTM configuration Fujitsu discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2313363](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313363.zip) On UE Capabilities for LTM Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2313365](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313365.zip) RRC Aspects of LTM with Dual Connectivity Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2313384](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313384.zip) Remaining issues of RRC configured Layer-2 reset Xiaomi discussion Rel-18 NR\_Mob\_enh2-Core [R2-2310579](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310579.zip)

[R2-2313520](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313520.zip) RRC aspects for LTM Huawei, HiSilicon discussion Rel-18 NR\_Mob\_enh2-Core

#### 7.4.2.2 L2 centric parts

General LTM discussions (incl all aspects) where the main issue/discussion point is L2 centric, if not better covered by previous . Including L2 and MAC impacts (Stage-3 oriented) and remaning issues for dynamic cell switch not addressed by subclause above.

Including the MAC Running CR. Focus this meeting on closing open issues and getting the CR in good shape.

[R2-2311826](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311826.zip) Cell Switching - CFRA,TA and RACH-less LTM completion Aspects Samsung Electronics Co., Ltd discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2311827](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311827.zip) Early Timing Advance Management – LBT Failure Handling Samsung Electronics Co., Ltd discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2311898](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311898.zip) Discussion on early TA acquisition vivo discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2311900](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311900.zip) Security issues for LTM cell switch command vivo discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2311902](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311902.zip) Discussion on L2 centric open issue for LTM vivo discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2311937](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311937.zip) Discussion on L2 Centric Parts CATT discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312001](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312001.zip) RAN2 aspects of RACH-based early TA acquisition Fujitsu discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312002](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312002.zip) LTM cell switch execution and completion Fujitsu discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312031](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312031.zip) Remaining issues on candidate cell TCI state activation Panasonic discussion

[R2-2312132](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312132.zip) Remaining MAC issues for UE based RACH-less LTM Futurewei discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312212](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312212.zip) MAC aspects of LTM Qualcomm Incorporated discussion

[R2-2312393](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312393.zip) DRX and measurement gap impact for PDCCH monitoring of RACH-less LTM NEC discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312410](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312410.zip) Introduction of NR further mobility enhancements in TS 38.321 Huawei, HiSilicon CR Rel-18 38.321 17.6.0 1705 - B NR\_Mob\_enh2-Core [R2-2311595](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311595.zip)

[R2-2312411](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312411.zip) Rapporteur proposals to address open issues in MAC running CR Huawei, HiSilicon discussion Rel-18 NR\_Mob\_enh2-Core

=> Revised in [R2-2313558](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313558.zip)

[R2-2313558](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313558.zip) Rapporteur proposals to address open issues in MAC running CR Huawei, HiSilicon discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312412](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312412.zip) TCI state in LTM cell switch MAC CE used in RACH Huawei, HiSilicon discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312490](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312490.zip) Discussion on TCI state related issues OPPO discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312492](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312492.zip) Discussion on early sync and RACH-less LTM OPPO discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312502](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312502.zip) Remaining issues for L2 centric parts of LTM Sharp discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312629](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312629.zip) Discussion on UE based TA measurement Transsion Holdings discussion Rel-18

[R2-2312782](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312782.zip) Further Discussion on L2 Centric Part of LTM ZTE Corporation, Sanechips discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312877](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312877.zip) UE based TA determination configuration Interdigital, Inc. discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312990](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312990.zip) Remaining MAC issues Ericsson discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2313047](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313047.zip) Discussion on MAC open issues to support LTM LG Electronics Inc. discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2313188](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313188.zip) Discussion on fallback RACH for L1L2-triggered mobility ASUSTeK discussion Rel-18 NR\_Mob\_enh2-Core [R2-2309881](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2309881.zip)

[R2-2313189](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313189.zip) Discussion on LTM Cell Switch Command MAC CE format ASUSTeK discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2313364](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313364.zip) On Cell Switch and TA Acquisition Aspects Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_Mob\_enh2-Core Withdrawn

[R2-2313385](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313385.zip) Remaining issues of RACH-less solution Xiaomi discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2313489](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313489.zip) On Cell Switch and TA Acquisition Aspects Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2313522](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313522.zip) RACH-less LTM cell switch Huawei, HiSilicon discussion Rel-18 NR\_Mob\_enh2-Core

### 7.4.3 Subsequent CPAC

Formerly called “NR-DC with selective activation cell of groups”.

Including SCPAC RRC running CR. Focus this meeting on closing open issues and getting the CR in good shape.

[R2-2311901](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311901.zip) Remaining issues for subsequent CPAC vivo discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2311932](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311932.zip) Discussion on remaining issues of subsequent CPAC Samsung R&D Institute UK discussion

[R2-2311938](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311938.zip) Discussion on subsequent CPAC CATT discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312170](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312170.zip) Further details of subsequent CPAC configurations NEC discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312171](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312171.zip) Remaining issues on security handling in SCPAC NEC discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312202](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312202.zip) Subsequent CPAC in NR-DC Qualcomm Incorporated discussion Rel-18

[R2-2312238](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312238.zip) Discussion on RRC centric open issues for subsequent CPAC ZTE Corporation, Sanechips discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312274](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312274.zip) discussion on subsequent CPAC Sharp discussion NR\_Mob\_enh2-Core

[R2-2312394](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312394.zip) Remaining issue of subsequent CPAC NEC discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312398](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312398.zip) Remaining Issues for Subsequent CPAC FGI discussion

[R2-2312483](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312483.zip) Left issues on subsequent CPAC Lenovo discussion Rel-18

[R2-2312494](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312494.zip) Discussion on the open issues for subsequent CPAC OPPO discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312513](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312513.zip) Discussion on NR-DC with subsequent CPAC. DENSO CORPORATION discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312548](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312548.zip) Discussion on SCG failure handling with subsequent CPAC ITRI discussion NR\_Mob\_enh2-Core [R2-2307890](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2307890.zip)

[R2-2312630](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312630.zip) Discussion on Selective Activation of Cell Groups in NR-DC Transsion Holdings discussion Rel-18

[R2-2312711](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312711.zip) Discussion on open issues for subsequent CPAC procedure ZTE Corporation, Sanechips discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312777](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312777.zip) Remaining issues on subsequent CPAC InterDigital Inc. discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312830](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312830.zip) Discussion on subsequent CPAC Ericsson discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312859](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312859.zip) On remaining issues for SCPAC Nokia, Nokia Shanghai Bell discussion

[R2-2313066](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313066.zip) Stage 3 issues for Subsequent CPAC LG Electronics discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2313168](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313168.zip) Remaining issues for subsequent CPAC Xiaomi discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2313523](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313523.zip) Subsequent CPAC Huawei, HiSilicon discussion Rel-18 NR\_Mob\_enh2-Core

### 7.4.4 CHO including target MCG and candidate SCGs for CPC CPA in NR-DC

Including CHO with cond SCG RRC running CR. Focus this meeting on closing open issues and getting the CR in good shape.

[R2-2311939](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311939.zip) Rapporteur proposals to open issues on CHO with candidate SCGs CATT, Huawei, HiSilicon, MediaTek, OPPO, ZTE Corporation, Sanechips, Fujitsu, vivo, Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2311986](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311986.zip) Discussions on CHO with candidate SCGs KDDI Corporation discussion

[R2-2311988](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311988.zip) Draft LS on RAN2 progress on CHO with candidate SCGs CATT LS out Rel-18 NR\_Mob\_enh2-Core To:RAN3

[R2-2312201](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312201.zip) CHO with multiple candidate SCGs Qualcomm Incorporated discussion Rel-18

[R2-2312239](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312239.zip) Remaining issues on CHO with candidate SCG(s) ZTE Corporation, Sanechips discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312399](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312399.zip) Remaining Issues for CHO including target MCG and candidate SCGs FGI discussion

[R2-2312413](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312413.zip) Discussion on CHO with candidate SCG(s) Huawei, HiSilicon discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312482](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312482.zip) Discussion on CHO with candidate SCG Lenovo discussion Rel-18

[R2-2312681](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312681.zip) Discussion on CHO with candidate SCGs CMCC discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312736](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312736.zip) Considerations on CHO with CPA/CPC Samsung discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312831](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312831.zip) CHO with associated CPC or CPA Ericsson discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312931](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312931.zip) Remaining issues on CHO with candidate SCG InterDigital Inc. discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2313049](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313049.zip) On how to address open issues for CHO with CPAC in Rel-18 Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2313067](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313067.zip) CHO with candidate SCG LG Electronics discussion Rel-18 NR\_Mob\_enh2-Core [R2-2311097](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311097.zip)

[R2-2313169](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313169.zip) Remaining issues for CHO with candidate SCG(s) Xiaomi discussion Rel-18 NR\_Mob\_enh2-Core

### 7.4.5 Others

Including contributions on improvement to SCell/SCG setup delay

Including outcome of [Post123bis][551][feMob] eEMR SCell setup delay (Nokia)

[R2-2311940](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311940.zip) Discussion on improvement on Scell SCG setup delay CATT discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312495](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312495.zip) Discussion on improvement to SCell/SCG setup delay OPPO discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312682](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312682.zip) Discussion on fast SCell/SCG setup CMCC, Ericsson, ZTE, Huawei, vivo discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312832](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312832.zip) Discussion on early measurements enhancements Ericsson, CMCC discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2312874](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312874.zip) Improvement on Scell/SCG setup/resume delay using LTM Interdigital, Inc. discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2313170](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313170.zip) Discussion on improvement to SCell/SCG setup delay Xiaomi discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2313307](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313307.zip) Early measurement report enhancement LG Electronics discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2313407](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313407.zip) Discussion on eEMR SCell setup delay vivo discussion NR\_Mob\_enh2-Core

[R2-2313410](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313410.zip) Discussion on SCell/SCG setup delay MediaTek Inc. discussion NR\_Mob\_enh2-Core [R2-2311113](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311113.zip)

[R2-2313494](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313494.zip) Email Discussion report on [Post123bis][551][feMob] eEMR SCell setup delay (Nokia) Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2313495](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313495.zip) eEMR SCell setup delay Nokia, Nokia Shanghai Bell 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: 2 TU

Tdoc Limitation: 6 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))

*Including outcome of [POST123bis][23][XR] 38.331 Running CR (Huawei)*

*Including outcome of [POST123bis][24][XR] 38.321 Running CR (Qualcomm))*

*Including outcome of [POST123bis][26][XR] 38.323 Running CR (LG)*

*Including outcome of [POST123bis][27][XR] 38.322 Running CR (Vivo)*

*Contributions on open issues addressed explicitly by the email discussions 23, 24, 26 and 27, should be avoided*

**Agreements**

**XR WI is considered complete from RAN2 point of view**

**Workplan**

[R2-2312133](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312133.zip) Work Plan for Rel-18 WI on XR Enhancements for NR Nokia, Qualcomm (Rapporteurs) Work Plan Rel-18 NR\_XR\_enh-Core

=> Noted

**LS**

[R2-2311709](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311709.zip) Reply LS on XR capacity enhancements (R1-2310502; contact: MediaTek) RAN1 LS in Rel-18 NR\_XR\_enh-Core To:RAN2

=> Noted

[R2-2311728](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311728.zip) Provisioning separate DL and UL PDU Set QoS Parameters to NG-RAN (R3-235890; contact: Qualcomm) RAN3 LS in Rel-18 NR\_XR\_enh-Core To:SA2 Cc:RAN2

=> Noted

**CR**

[R2-2311769](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311769.zip) Introduction of XR enhancements Qualcomm CR Rel-18 38.321 17.6.0 1698 - B NR\_XR\_enh-Core

=> Revised in [R2-2313588](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313588.zip)

[R2-2313588](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313588.zip) Introduction of XR enhancements Qualcomm CR Rel-18 38.321 17.6.0 1698 1 B NR\_XR\_enh-Core

- Nokia thinks we should simplify the cover sheet.

=> Simplify cover sheet (not all agreements need to be captured)

- Apple thinks that it would be simpler to model the BSR as an additional BSR format so we can follow legacy BSR framework. Qualcomm thought it would be cleaner to capture it in a separate clause. Nokia, Oppo thinks that Apple approach is simpler.

=> the new BSR will follow the legacy BSR framework and introduce it as an additional BSR format

=> The CR is endorsed and will be updated according to agreements above and new agreements after RAN2#124

[R2-2311903](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311903.zip) Introduction of XR Enhancements vivo CR Rel-18 38.322 17.3.0 0053 - B NR\_XR\_enh-Core

=> The CR is endorsed

[R2-2312136](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312136.zip) Introduction of XR Enhancements Nokia, Qualcomm (Rapporteurs) CR Rel-18 38.300 17.6.0 0724 - B NR\_XR\_enh-Core

=> The CR is endorsed

[R2-2312192](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312192.zip) Introduction of XR Enhancements LG Electronics Inc. (Rapporteur) CR Rel-18 38.323 17.5.0 0128 - B NR\_XR\_enh-Core

- Lenovo doesn’t think we need this additional timer. Intel agrees with Lenovo, the new timer makes it more complex.

- Nokia doesn’t thinks that there is a big complexity problem. Two timers allows to just stop the new discard the timer when congestion is no longer a problem.

- Nokia asks if the intended behavior is that you still discard even if the discard is disabled. The PDUs shouldn’t be discarded anymore. CATT agrees with Nokia. Lenovo thinks that even if we discard, it is a corner case and it wouldn’t impact the performance much. Ericsson agrees with Lenovo and we don’t need to do anything complex for these cases.

Concurrent timer or not?

- Huawei thinks that we should have two timers but only have one timer at a time.

- Qualcomm thinks that one or two timers is an implementation issue. They see two advantages, we can do immediate discard when congestion happens.

=> Two timers but only one timer runs at a time in the spec

=> The CR is endorsed and will be updated according to agreements made in RAN2#124

[R2-2312155](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312155.zip) UE capabilities for Rel-18 XR WI Intel Corporation draftCR Rel-18 38.306 17.6.0 NR\_XR\_enh-Core

[R2-2312156](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312156.zip) UE capabilities for Rel-18 XR WI Intel Corporation draftCR Rel-18 38.331 17.6.0 NR\_XR\_enh-Core

* [AT124][032][XR] UE capabilities (Intel)

Intended outcome: agree to 38.331 and 38.306 over email

Deadline: Friday

[R2-2311904](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311904.zip) Summary of discussion on open issues in RLC running CR vivo discussion Rel-18 NR\_XR\_enh-Core

*Proposal 2: [To discuss] The SDU(s) stored in RLC with discardTimer expired, but has not been discarded, should be calculated in the data volume in RLC for DSR. How to capture it could be discussed during CR draft/review.*

- Mediatek doesn’t support as the data will be discarded anyways. Nokia thinks it is a corner case but it should be reflected. LG thinks that the RLC PDU will take up the grant so it should be included.

- Lenovo thinks that anything that takes up UL grant should be reported.

=> Noted

**Agreements on RLC open issues:**

1. Delay-critical data in RLC is determined by the indication from PDCP layer.
2. RLC data PDU(s) pending for RLC AM retransmission shall be included in the data volume calculation in RLC for DSR.
3. The PDU (s) stored in RLC with discardTimer expired, but has not been discarded, should be calculated in the data volume in RLC for DSR
4. RLC Control PDU shall be included in the data volume calculation in RLC for DSR

[R2-2312193](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312193.zip) Summary of [Post123bis][026][XR] Comments on PDCP running CR LG Electronics Inc. (Rapporteur) discussion Rel-18 NR\_XR\_enh-Core

=> Noted

[R2-2312603](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312603.zip) Introduction of XR enhancements into TS 38.331 Huawei, HiSilicon CR Rel-18 38.331 17.6.0 4436 - B NR\_XR\_enh-Core Revised

=> The CR is endorsed

[R2-2313518](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313518.zip) Introduction of XR enhancements into TS 38.331 Huawei, HiSilicon CR Rel-18 38.331 17.6.0 4436 1 B NR\_XR\_enh-Core [R2-2312603](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312603.zip)

**Other WGs status**

[R2-2312134](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312134.zip) SA2 Status for XR Nokia, Qualcomm (Rapporteurs) discussion Rel-18 NR\_XR\_enh-Core

=> Noted

[R2-2312135](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312135.zip) SA4 Status for XR Nokia, Qualcomm (Rapporteurs) discussion Rel-18 NR\_XR\_enh-Core Withdrawn

**Open issues and RRC post email discussion**

[R2-2312604](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312604.zip) Report of [POST123bis][023][XR] 38.331 Running CR (proposals on open issues for RRC CR of XR enhancements WI) Huawei, HiSilicon discussion Rel-18 NR\_XR\_enh-Core

*Proposal 1: Add the following note in section 5.7.4.2:*

*“NOTE: The UE is not required to initiate transmission of the UEAssistanceInformation message to provide UL traffic information immediately after being configured to do so, e.g. in case sufficient information is not yet available at the UE.“*

- Nokia thinks that this gives too much freedom and we should exclude a few cases. As long some information is available it should be transmitted. Huawei inidicates that this was a compromise.

- Intel thinks that this note allows the spec to keep the “shall” and just clarify that that UE doesn’t need to send right away if the information is not yet available. ZTE agrees that the UE should only send reliable information, but in any case we will not specify exact timing. The UE shall send it but when we don’t specify.

=> No note is needed for the initiation of transmission of the UEAssistanceInformation. The understanding is that the UE will not send something that is not available.

*Proposal 3d: When jitter is not signalled by the UE, it means the jitter is unknown (i.e. when there is no jitter, the UE should report value 0).*

- Intel thinks that if we add a value of infinity this would solve the problem. CATT and Ericsson think that we can add another signalling to indicate. CATT that a dedicate code point would work. Nokia is wondering what the network will do and even if jitter will change (which is not likely) the network would have no idea what the new configuration would be.

- Intel suggests that we just don’t use delta signaling. ZTE explains that in UL network remembers everything. If the UE doesn’t have jitter it simple doesn’t report it.

- Google thinks that +/- 7ms bound doesn’t cover all applications. If it is higher than 7ms it is unpredictable traffic.

*Proposal 4: The periodicity is signalled by the UE with INTEGER (1..640000) which expresses the value of periodicity in microseconds.*

|  |
| --- |
| **Agreements on RRC open issues**  1. The following cycles are supported for short DRX cycle  ms1001/240, ms25over6, ms25over3, ms1001over120, ms100over9, ms125over9, ms50over3, ms1001over60, ms200over9, ms100over3, ms1001over30, ms125over3, ms1001over24, ms200over3  2. The following cycles are supported for longDRX cycle (additional values requested by companies in red, additional values to handle multiple of short DRX cycle in blue):  ms1001/240, ms25over6, ms25over3, ms1001over120, ms100over9, ms125over9, ms50over3, ms1001over60, ms200over9, ms250over9, ms100over3, ms1001over30, ms125over3, ms1001over24, ms200over3, ms1001over15, ms250over3, ms1001over12, ms400over3.  3. Jitter range is signalled using separate values for upper and lower bound.  4 The granularity of jitter bound signalling is 0.5 ms.  5 Signalled jitter bound can be up to +/-7 ms with a separate value indicating beyond 7 ms and a separate value indicting jitter bound is 0.  6 The periodicity is signalled by the UE with INTEGER (1..640000) which expresses the value of periodicity in microseconds.  7 The remaining time threshold is signalled as INTEGER (5..68).  8 The following values are supported for PSI discard timer: {ms0, ms2, ms4, ms6, ms8, ms10, ms12, ms14, ms18, ms22, ms26, ms30, ms40, ms50, ms75, ms100}  9 The following values are supported for ul-TrafficInfoProhibitTimer-r18: {s0, s0dot5, s1, s2, s5, s10, s20, s30, s60, s90, s120, s300, s600, spare3, spare2, spare1}  10 T346x is maintained by the UE per QoS flow. |

[R2-2312138](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312138.zip) XR Open Issues Nokia, Huawei, Intel, LG, Qualcomm, Vivo (Rapporteurs) discussion Rel-18 NR\_XR\_enh-Core

=> Noted

[R2-2313348](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313348.zip) Discussion on remaining issues of MAC CR for XR China Telecom discussion

**Agreements list from previous cycles**

[R2-2312137](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312137.zip) XR Agreements Nokia, Qualcomm (Rapporteurs) discussion Rel-18 NR\_XR\_enh-Core

=> Noted

### 7.5.2 XR awareness

Including any remaining (i.e. not discussed in email discussion) Stage-3 details of the UAI for XR traffic assistance information from UE to network

[R2-2311945](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311945.zip) UAI reporting for non-converged measurements CATT discussion Rel-18 NR\_XR\_enh-Core

[R2-2311980](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311980.zip) Discussion on XR awareness Xiaomi Communications discussion

[R2-2312003](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312003.zip) Discussions on uplink End of Data Burst indication for XR Fujitsu discussion Rel-18 NR\_XR\_enh-Core

[R2-2312039](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312039.zip) Remaing issues of XR awareness NEC discussion Rel-18 NR\_XR\_enh-Core

[R2-2312085](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312085.zip) Open issues for XR awareness ZTE Corporation, Sanechips discussion Withdrawn

[R2-2312139](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312139.zip) Remaining Issues in Assistance Information Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_XR\_enh-Core

[R2-2312158](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312158.zip) PDU Set identification: definition and default behaviour Intel Corporation discussion Rel-18 NR\_XR\_enh-Core

[R2-2312327](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312327.zip) Remaining Issues on XR Awareness Apple discussion Rel-18 NR\_XR\_enh-Core

[R2-2312470](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312470.zip) Discussion on PDU sets and data burst awareness in RAN Lenovo discussion Rel-18

[R2-2312534](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312534.zip) On XR awareness Google Inc. discussion

[R2-2312601](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312601.zip) Discussion on XR assistance information for UL Huawei, HiSilicon discussion Rel-18 NR\_XR\_enh-Core

[R2-2313097](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313097.zip) Stage-3 Details on XR - awareness Ericsson discussion Rel-18 NR\_XR\_enh-Core

[R2-2313207](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313207.zip) Remaining Issues of UAI for XR CMCC discussion Rel-18 NR\_XR\_enh-Core

### 7.5.3 XR-specific power saving

Including any remaining (i.e. not discussed in email discussion) Stage-3 details

[R2-2311768](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311768.zip) Summary of discussion on open issues in TS 38.321 Qualcomm Incorporated discussion Rel-18 NR\_XR\_enh-Core

*Proposal 11. Discuss whether to leave it to UE implementation to ensure no rounding error in the modulus operation or define it based on a specific formula. (9 vs 5)*

For reference

|  |
| --- |
| Question 11. Which one of the following options do you prefer to capture the agreement that “We will have normative text to avoid rounding errors.”?   * Option 1. Add a line in the normative text after the DRX formula stating that “The MAC entity shall ensure no rounding error is generated when performing the modulus operation with drx-NonIntegerShortCycle or drx-NonIntegerLongCycle as the divisor.” The exact method to implement the modulus operation without rounding error is left to UE implementation. * Option 2. Specify in the normative text that the modulus operation with non-integer DRX cycles shall be implemented by modulus (A, B) = A – floor (A/B) × B. * Option 3. Specify in the normative text that the modulus operation with non-integer (ratio between integers) DRX cycles shall be implemented by modulus (A, B/C) = [(A × C) modulus B] / C. * Option 4. Please describe your own preferred method in your comment. |

[R2-2312225](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312225.zip) Remaining Issues on DRX Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_XR\_enh-Core

*Proposal 1: capture Option 3 or option 4 from the email discussion in the normative text to avoid rounding errors.*

[R2-2313095](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313095.zip) Discussion on XR-specific power saving Ericsson discussion Rel-18 NR\_XR\_enh-Core

*Proposal 1 Select Option 1 for the normative text about rounding errors and, additionally, clarify what the DRX cycle rounding error is, by adding the normative text: “If Long DRX is configured, the drx-onDurationTimer shall be effectively started at time intervals of either floor(drx-NonIntegerLongCycle) or ceil(drx-NonIntegerLongCycle) apart from each other. If Short DRX is configured and the drx-ShortCycleTimer is running, the drx-onDurationTimer shall be effectively started at time intervals of either floor(drx-NonIntegerShortCycle) or ceil(drx-NonIntegerShortCycle) apart from each other.”*

Discussion

- Google thinks it should be up to UE implementation. Nokia and Google thinks that option 2 is not acceptable.

- Huawei, Apple, Ericsson, Xiaomi, Vivo, Oppo agrees with option 1

- Mediatek supports option 2 and ok with option 1 but with a NOTE.

- Fujitsu agrees to option 3 or 4.

**Agreements**

1 Add a line in the normative text after the DRX formula stating that “The MAC entity shall ensure no rounding error is generated when performing the modulus operation with drx-NonIntegerShortCycle or drx-NonIntegerLongCycle as the divisor.” The exact method to implement the modulus operation without rounding error is left to UE implementation.

**Preferred DRX cycle field in UAI message**

[R2-2312225](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312225.zip) Remaining Issues on DRX Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_XR\_enh-Core

Proposal 2: it is not necessary to extend preferred DRX cycle field in UEAssistanceInformation message for non-integer cycles.

[R2-2313349](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313349.zip) Non-integer DRX cycle preference indication China Telecom discussion

Proposal 1: DRX-Config IE needs to be extended to support the configuration of DRX cycles in rational numbers.

Proposal 2: UE can provide its preference on non-integer DRX cycles to the network via UEAssistanceInformation message.

Discussions

- Qualcomm, Apple, Vivo, mediatek ask why not. Xiaomi has some sympathy.

- LG, Samsung, Huawei, don’t think it is needed as the network has all the information

**Agreements**

1 RAN2 will not extend the preferred DRX cycle field in UEAssistanceInformation message for non-integer cycles.

**Initialization mismatch issue for NSFN counter for SFN wrap-around**

[R2-2312249](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312249.zip) Remaining issues for C-DRX enhancements for XR Huawei, HiSilicon, Ericsson discussion Rel-18 NR\_XR\_enh-Core

Proposal 1: Address the issue of DRX config crossing the H-SFN boundary in the running CR, by not adding drx-ReferenceSFN to the DRX formula and, instead, adding the following normative text:

“Use drx-ReferenceSFN to initialize NSFN at the UE side as follows:

• When drx-ReferenceSFN is configured to 512 and the RRC signalling containing this drx-ReferenceSFN is received during the first half of a hyper frame (i.e., SFN is between 0 and 512), NSFN is initialized to 1;

• Otherwise, NSFN is initialized to 0.”

- Ericsson, Qualcomm think that it doesn’t work. Samsung thinks that the network can handle this problem by implementation.

=> Noted

[R2-2311979](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311979.zip) Discussing on XR-specific power saving Xiaomi Communications discussion

[R2-2312086](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312086.zip) XR-Specific power saving enhancements ZTE Corporation, Sanechips discussion

[R2-2312390](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312390.zip) Remaining issues on DRX enhancement for XR LG Electronics Inc. discussion Rel-18 NR\_XR\_enh-Core

[R2-2312471](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312471.zip) Discussion of DRX enhancement Lenovo discussion Rel-18

[R2-2312510](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312510.zip) Remaining issues of C-DRX enhancement for XR NEC Corporation discussion Rel-18 NR\_XR\_enh-Core

[R2-2312541](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312541.zip) XR-specific power saving enhancement Google Inc. discussion

[R2-2312657](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312657.zip) Discussion on the DRX enhancement CMCC discussion Rel-18 NR\_XR\_enh-Core

[R2-2312733](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312733.zip) Discussion on remaining issue of power saving scheme for XR Samsung discussion Rel-18 NR\_XR\_enh

[R2-2312867](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312867.zip) Remaining issues for C-DRX in XR MediaTek Inc. discussion

[R2-2313440](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313440.zip) Discussion on various frame rates supported for XR-specific power saving III discussion

### 7.5.4 XR-specific capacity improvements

No documents should be submitted to 7.5.4. Please submit to 7.5.4.x

#### 7.5.4.1 BSR enhancements for XR

Including discussion on the Stage-3 details of the static BSR table for XR

Including discussion on the Stage-3 details the DSR

**Open issues from post R2#123b MAC email discussion:**

[R2-2311768](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311768.zip) Summary of discussion on open issues in TS 38.321 Qualcomm Incorporated discussion Rel-18 NR\_XR\_enh-Core

**Agreements**

1. The Refined BSR MAC CE includes a new 8-bit bitmap between the LCG bitmap and buffer size fields to indicate which BSR table an LCG uses.
2. The Refined BSR MAC CE has a one-octet eLCID.
3. The Refined BSR MAC CE has the same logical channel priority as the legacy BSR MAC CEs.
4. The DSR MAC CE uses one-octet eLCID
5. The DSR MAC CE has a logical channel priority lower than the Timing Advanced Report and higher than the SL-BSR (prioritized).
6. The PSI-Based PDU Discard Activation/Deactivation MAC CE use one-octet eLCID
7. Not introduce Truncated Refined BSR MAC CE, which uses the new BSR table.
8. Dynamic indication of BSR table in the DSR MAC CE is supported. FFS how UE determines which BSR table to use when reporting, e.g. defined in the spec or configured by RRC

***Discussions***

*Introduce Truncated Refined BSR MAC CE, which uses the new BSR table. FFS when/how it is used*

- Ericsson and Nokia are fine to not introduce the truncated BSR, it’s a corner case and it is more complex.

*Dynamic indication of BSR table in the DSR MAC CE is not supported. FFS how UE determines which BSR table to use when reporting, e.g. defined in the spec or configured by RRC. (8/14)*

*-* Qualcomm thinks this is useful. Apple thinks that BSR and DSR are two separate things and we shouldn’t mix. Futurewei doesn’t think that the dynamic indication is needed if the new table doesn’t count up to zero value. CATT agrees with Qualcomm. Google prefers to have a configuration from network which table to use.

*-* oppo doesn’t want to mix capabilities. Huawei thinks that we don’t need to mix capability we can always include legacy BSR.

*-* Nokia doesn’t want dynamic indication as it would require a new format.

*-* Ericsson thinks that if we want to use the new table we should include the dynamic indication. Lenovo agrees with Ericsson and Huawei.

*-* LG thinks that legacy table should be enough. Samsung also doesn’t want to mix the DSR and BSR and we should use legacy. Xiaomi agrees as DSR is a small amount of data.

*-* Huawei doesn’t think that is only a small amount of data.

*-* Nokia asks what happens if the UE doesn’t support BSR.

*Proposal 12. The maximum buffer size in the new BSR table is the determined based on the maximum bit rate and minimum frame rate of UL XR traffic. FFS the exact formula for determining the maximum using those two parameters. (10/14)*

*Proposal 13. The minimum buffer size in the new BSR table is the determined based on the minimum bit rate and highest frame rate of UL XR traffic. FFS the exact formula for determining the minimum using those two parameters. (9/13)*

FFS from email discussion

[R2-2313560](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313560.zip) Remaining issues on BSR Qualcomm Incorporated discussion Rel-18 NR\_XR\_enh-Core

*Min/max buffer size*

*Proposal 1. The maximum buffer size can be determined based on the ratio between maximum link rate (60Mbps) and minimum frame rate (15 fps), which is 750KB .*

*Proposal 2. The minimum buffer size can be determined based on the ratio between minimum bit rate (10 Mbps) and maximum frame rate (120 fps), which is 5 KB.*

*how UE determines which BSR table to use when reporting, e.g. defined in the spec or configured*

[R2-2311771](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311771.zip) Remaining issues on DSR Qualcomm Incorporated discussion Rel-18 NR\_XR\_enh-Core

*Proposal 10. Network can RRC configure whether UE can use new BSR table in DSR MAC CE. If configured, DSR MAC CE includes indicators on which BSR table is used to report data volume of an LCG.*

­- Nokia thinks that we should go with this, but it should be the same configuration as LCG, whether it can use new table or not BSR. If BSR can use it then DSR can use it.

**Remaining time field in DSR**

[R2-2311768](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311768.zip) Summary of discussion on open issues in TS 38.321 Qualcomm Incorporated discussion Rel-18 NR\_XR\_enh-Core

*Proposal 5. Discuss whether to define a lookup table, a formula or some other methods to encode the remaining time field in the DSR MAC CE. (8 vs 4 vs 1)*

[R2-2312992](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312992.zip) Remaining issue for DSR MAC CE MediaTek Inc. discussion

*Proposal 1: Define a lookup table for remaining time field in the DSR MAC CE.*

[R2-2311948](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311948.zip) Consideration on DSR CATT discussion Rel-18 NR\_XR\_enh-Core

*Proposal 7: The Delay Status field and the value of remaining time in the Delay Status field can be expressed using a linear mapping.*

**Long BSR**

[R2-2311768](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311768.zip) Summary of discussion on open issues in TS 38.321 Qualcomm Incorporated discussion Rel-18 NR\_XR\_enh-Core

*Proposal 14. Discuss whether UE may use the long BSR when there is only one LCG with data available and that LCG is allowed to use the new BSR table.*

[R2-2313434](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313434.zip) Discussion on BSR enhancements for XR Samsung discussion Rel-18 FS\_NR\_XR\_enh

*Proposal 2: UE uses the refined BSR when there is only one LCG with data available and that LCG is allowed to use the new BSR table.*

[R2-2311947](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311947.zip) Consideration on BSR CATT discussion Rel-18 NR\_XR\_enh-Core

*Proposal 1: RAN2 introduces Enhanced Short BSR MAC CE which includes 3-bit LCG ID field, 1-bit BT field, and 8-bit Buffer Size field.*

*Proposal 2: One-octet eLCID is used to indicate the Enhanced Short BSR MAC CE.*

**Agreements on BSR/DSR**

1. The Refined BSR MAC CE includes a new 8-bit bitmap between the LCG bitmap and buffer size fields to indicate which BSR table an LCG uses.
2. The Refined BSR MAC CE has a one-octet eLCID.
3. The Refined BSR MAC CE has the same logical channel priority as the legacy BSR MAC CEs.
4. The DSR MAC CE uses one-octet eLCID
5. The DSR MAC CE has a logical channel priority lower than the Timing Advanced Report and higher than the SL-BSR (prioritized).
6. The PSI-Based PDU Discard Activation/Deactivation MAC CE use one-octet eLCID
7. Not introduce Truncated Refined BSR MAC CE, which uses the new BSR table.
8. Dynamic indication of BSR table in the DSR MAC CE is supported. Network can RRC configure whether LCG can use new BSR table for BSR. If the network configures new table for BSR the UE uses new table for DSR MAC CE. If configured, DSR MAC CE includes indicators on which BSR table is used to report data volume of an LCG. The same principles for BSR are used to determine whether legacy or new table is included.
9. The maximum buffer size can be determined based on the ratio between maximum link rate (60Mbps) and minimum frame rate (15 fps), which is 750KB.
10. The minimum buffer size can be determined based on the ratio between minimum bit rate (10 Mbps) and maximum frame rate (120 fps), which is 5 KB
11. Remaining time field range is 1 to 64 and 6 bits in DSR MAC CE. Update value in RRC to align.
12. If one LCG, that has new table configured, has buffered data that LCG is allowed to use refined BSR

Discussion

**Additional open issues:**

**Triggering of SR for DSR**

[R2-2311771](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311771.zip) Remaining issues on DSR Qualcomm Incorporated discussion Rel-18 NR\_XR\_enh-Core

SR triggering

*Proposal 1. UE triggers SR after a DSR is triggered, if there is no PUSCH available to send the DSR MAC CE and there is no pending SR already triggered by this SR configuration? By another DSR.*

-

*Proposal 2. Network configures a dedicated SR configuration for DSR.*

- Vivo agrees. CATT thinks it would be much simpler if we reuse the rules with SR for BSR, SR configuration associated with a logical channel. Xiaomi asks if we can use any SR configuration for DSR. Lenovo, Nokia, Ericsson, Huawei agrees with CATT

- Oppo thinks that we can have a dedicated SR configuration but it should be per LCH.

- Qualcomm explains that DSR has higher priority than regular BSR and DSR can be used per MAC entity than per LCG and a single dedicated SR configuration is sufficient.

- Samsung and LG thinks that we can have a dedicated SR configuration for DSR so we can send SR as soon as possible. Google thinks we can have a dedicated SR for DSR but the UE can use any SR if the resource is available.

- Vivo is concerned that the UE timer would prevent the UE from sending SR so we would need to update the spec to state that the UE ignores the prohibit timer.

- Nokia doesn’t think the prohibit timer is an issue, is this is only for the network to process the SR.

Proposal 3. There is no prioritization in SR configuration for DSRs for different LCGs.

DSR Cancellation

Proposal 7. If a MAC PDU is large enough to include all PDUs from the LCGs that have pending DSRs, the UE may not include DSR MAC CE in the MAC PDU.

- Nokia thinks that it should be a “shall” and not a “may”, as it is different from BSR. LG thinks we should follow the BSR which is a may. Qualcomm explains that this was a may for BSR to avoid the UE to rebuild the PDU. Lenovo explains that the PDU structure allows the UE to easily do padding instead. Futurewei thinks it should a be a shall to remove all ambiguity.

Proposal 8. A pending DSR is cancelled if the associated PDU or PDU set is discarded.

- Apple asks if it is that we send a DSR if the remaining time is extremely small and the network can’t do much anyways. CATT thinks that this is complicated if we need to configure another threshold

*Proposal 9. UE cancels all pending DSRs upon MAC reset.*

*Value zero is supported:*

- Ericsson thinks we need to report zero for the case where we have multiple LCH triggering DSR.

- LG doesn’t understand why we report zero, as we should have discarded it anyways.

- Vivo and Huawei don’t think that the network can do anything with this information.

- Vivo thinks that we should cover the case where the PDUs are in the RLC pending. LG thinks that those PDUs are not important.

- Qualcomm thinks that this is useful for the network to understand that packets will be discarded.

- Nokia agrees with LG

- Google agrees but also supports apple’s point that it doesn’t make sense to report if DSR is below. Apple thinks we can do a fixed value.

*If you get a new PDU set below the threshold, do you trigger a new DSR or do wait until the first one is discarded?*

- Huawei thinks that the second DSR wouldn’t be triggered if a first DSR is triggered. Intel thinks that this is a valid issue to discuss, it is helpful for the network to know that there is a second PDU set has triggered the DSR. Nokia and Lenovo thinks that if a new PDU set has gone below the threshold then the UE should trigger a new DSR if that PDU set hasn’t been reported yet. ZTE thinks that at the time of transmission of DSR the DSR reflected status. LG thinks that BSR and DSR are similar.

**Agreements:**

1. No dedicated SR configuration for DSR will be introduced, we use the same SR configuration for BSR
2. UE triggers SR after a DSR is triggered, if there is no PUSCH available to send the DSR MAC CE and there is no pending SR already triggered for this LCH.
3. If a MAC PDU is large enough to include all PDUs/SDUs within the triggering threshold from the LCGs that have pending DSRs, the UE shall not include DSR MAC CE in the MAC PDU
4. A pending DSR is cancelled if all the data within the triggering threshold is discarded or transmitted
5. DSR with a remaining time value zero ms for all LCG is not transmitted. The shortest non-zero remaining time is reported for a LCG.
6. UE cancels all pending DSRs upon MAC reset

**Cancellation of SR triggered by pending DSR**

[R2-2311948](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311948.zip) Consideration on DSR CATT discussion Rel-18 NR\_XR\_enh-Core

Proposal 18: An SR triggered by a DSR should be cancelled and the associated sr-ProhibitTimer shall be stopped when:

- the MAC PDU is transmitted and this PDU includes the DSR MAC CE that triggered the SR; or

- the DSR that triggered the SR is cancelled.

**What should be included in delay-critical PDCP data volume (from R2#123b PDCP email discussion)**

[R2-2313290](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313290.zip) Remaining issues on Delay Status report LG Electronics Inc. discussion NR\_XR\_enh-Core

**Agreements**

1. The PDCP Control PDUs should be considered as delay-critical PDCP data volume.

2. The PDCP SDUs and PDCP Data PDUs to be retransmitted for AM DRBs should be considered as the delay-critical PDCP data volume.

[R2-2311770](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311770.zip) Remaining issues on BSR Qualcomm Incorporated discussion Rel-18 NR\_XR\_enh-Core

=> Revised in [R2-2313560](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313560.zip)

[R2-2313560](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313560.zip) Remaining issues on BSR Qualcomm Incorporated discussion Rel-18 NR\_XR\_enh-Core

[R2-2311825](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311825.zip) Discussion on Delay status report CANON Research Centre France discussion Rel-18 NR\_XR\_enh-Core

[R2-2311905](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311905.zip) Discussion on DSR contents vivo discussion Rel-18 NR\_XR\_enh-Core

[R2-2311906](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311906.zip) Discussion on remaining issues on BSR for XR vivo discussion Rel-18 NR\_XR\_enh-Core

[R2-2311907](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311907.zip) Discussion on DSR transmission vivo discussion Rel-18 NR\_XR\_enh-Core

[R2-2311977](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311977.zip) Discussing on DSR enhancements for XR capacity Xiaomi Communications discussion

[R2-2312004](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312004.zip) Discussions on DSR Fujitsu discussion Rel-18 NR\_XR\_enh-Core

[R2-2312087](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312087.zip) Open issues for BSR/DSR enhancements for XR ZTE Corporation, Sanechips discussion

[R2-2312097](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312097.zip) Delay status reporting for XR Lenovo discussion Rel-18 NR\_XR\_enh-Core

[R2-2312226](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312226.zip) Remaining Issues on BSR and DSR Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_XR\_enh-Core

[R2-2312328](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312328.zip) Views on Open Issues of BSR Enhancements for XR Apple discussion Rel-18 NR\_XR\_enh-Core

[R2-2312329](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312329.zip) Delay Status Reporting for XR Apple discussion Rel-18 NR\_XR\_enh-Core

[R2-2312400](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312400.zip) Discussion on delay status reporting for XR FGI discussion

[R2-2312414](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312414.zip) Discussion on delay status reporting for XR DENSO CORPORATION discussion Rel-18 NR\_XR\_enh-Core

[R2-2312472](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312472.zip) Discussion on BSR enhancements for XR Lenovo discussion Rel-18

[R2-2312508](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312508.zip) Discussion on delay status reporting for XR NEC Corporation discussion Rel-18 NR\_XR\_enh-Core

[R2-2312589](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312589.zip) Discussion on BSR enhancement for XR OPPO discussion Rel-18 NR\_XR\_enh-Core

[R2-2312605](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312605.zip) New BSR triggers and BSR MAC CE NEC discussion Rel-18 FS\_NR\_XR\_enh

[R2-2312613](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312613.zip) Discussion on delay status report for XR Google Inc. discussion NR\_XR\_enh-Core

[R2-2312668](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312668.zip) Discussion on BSR and DSR enhancement for XR CMCC discussion Rel-18 NR\_XR\_enh-Core

[R2-2313093](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313093.zip) Discussion on BSR enhancements for XR Ericsson discussion Rel-18 NR\_XR\_enh-Core

[R2-2313174](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313174.zip) BSR enhancements for XR InterDigital discussion Rel-18 NR\_XR\_enh-Core

[R2-2313267](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313267.zip) Discussion on BSR enhancements for XR III discussion NR\_XR\_enh-Core

[R2-2313413](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313413.zip) Discussion on DSR and BSR enhancements for XR Huawei, HiSilicon discussion Rel-18 NR\_XR\_enh-Core

[R2-2313422](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313422.zip) Remaining issues on the new BS table and Refined BSR MAC CEs Futurewei discussion Rel-18 NR\_XR\_enh-Core

[R2-2313435](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313435.zip) Discussion on DSR for XR Samsung discussion Rel-18 FS\_NR\_XR\_enh

[R2-2313459](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313459.zip) Discussion on BS Table for one LCG with data available LG Electronics Inc. discussion Rel-18 NR\_XR\_enh-Core

[R2-2313541](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313541.zip) Remaining issues on BSR enhancements for XR China Telecom discussion

#### 7.5.4.2 Discard operation for XR

Including discussion Stage-3 details of discard operation for XR

**Open issues from post R2#123b PDCP email discussion**

**Dependencies between PDU Set discard and PSI based SDU discard**

[R2-2313295](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313295.zip) Discussion on PDCP open issues LG Electronics Inc. discussion NR\_XR\_enh-Core

Proposal 1. The PSI based SDU discard and the PDU set discard should be independent features in XR.

- Oppo thinks that that there should be coupling between the two.

**Concurrent running of discardTimer and discardTimerForLowImportance (resolved)**

[R2-2313295](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313295.zip) Discussion on PDCP open issues LG Electronics Inc. discussion NR\_XR\_enh-Core

Proposal 2. For PSI based SDU discard, only one discard timer is running per PDCP SDU, same as legacy.

[R2-2311949](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311949.zip) Details of Discard Operation CATT discussion Rel-18 NR\_XR\_enh-Core

Proposal 2: The discardTimer should be always started upon receiving a PDCP SDU from upper layer if it is configured, no matter the discardTimerForLowImportance is started or not.

**Agreements**

1 The PSI based SDU discard and the PDU set discard should be independent features in XR.

**Handling of discardTimer when a PDCP SDU is discarded by ACK in PDCP status report if PDU Set discard is configured**

[R2-2313295](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313295.zip) Discussion on PDCP open issues LG Electronics Inc. discussion NR\_XR\_enh-Core

Proposal 3. Whether to keep the discardTimer running until expiry or disable the discardTimer for a PDCP SDU discarded by the PDCP status report is left up to UE implementation, same as legacy. No specification change is needed.

[R2-2312330](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312330.zip) Remaining Issues on Discard Operations for XR Apple discussion Rel-18 NR\_XR\_enh-Core

Proposal 3: If a PDCP SDU is discarded as its successful delivery is confirmed by PDCP status report, there is no need to keep its discardTimer or discardTimerForLowImportance running.

Discussion

- Intel and Huawei thinks that this should be addressed and timers should be kept running. Lenovo doesn’t think that we have a problem.

- Vivo shares LGs view

- Apple thinks keep the timer running increases UE complexity and this corner case doesn’t justify complexity.

- Ericsson agrees with Intel now.

- Nokia thinks that this problem only exists for RLC AM and that is not a valid use case for Rel-18 XR.

=> No problem to address in Rel-18

**Open issues from post R2#123b MAC email discussion:**

[R2-2311768](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311768.zip) Summary of discussion on open issues in TS 38.321 Qualcomm Incorporated discussion Rel-18 NR\_XR\_enh-Core

Proposal 10. Discuss whether the initial state of the PSI-Based PDU Discard Activation/Deactivation MAC CE is deactivated or configured by RRC. (7 vs 5)

[R2-2313412](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313412.zip) Discussion on PDU set discarding for XR traffic Huawei, HiSilicon discussion Rel-18 NR\_XR\_enh-Core

Proposal 1: Network indicates the initial state of lower importance PDCP discard timer activation in RRC reconfiguration message.

[R2-2313408](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313408.zip) Remaining Issues on PDU Discard Operation for XR Meta discussion

Proposal 3: The initial state of the PSI-Based PDU Discard Activation/Deactivation MAC CE is deactivated.

Discussion

- Xiaomi, Meta, Mediatek, QC, Nokia think initial state should be deactivated

- Ericsson, Samsung, Fujitsu, Apple, Oppo supports RRC configuration flag as it is up to the network to decide

- Nokia wonders why you would configure the UE if you are already congested.

- LG reminds that for Scell deactivation in LTE we realized later that we needed the RRC flag and we learned from our mistakes for PDCP activation and added the flag. It is more future proof. Nokia thinks that it has to be in the CU and then it should be MAC CE. Vivo agrees with Nokia

- Huawei thinks that this is very simple to add a flag and doesn’t agree that the network wouldn’t configure the UE if it is congested.

- Vodafone thinks that it is good to have a bit

**Agreements**

1 The initial state of the PSI-Based PDU Discard Activation/Deactivation MAC CE is deactivated.

**Signalling between tx and rx entities**

[R2-2311946](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311946.zip) PDCP discard notifications to receiving PDCP entity CATT, CANON Research Centre France, Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_XR\_enh-Core

*Proposal 1: When configured to do so, the transmitting PDCP entity informs the receiving PDCP entity about the discarded SDUs.*

- Ericsson doesn’t think this is an issue, it is similar to legacy. LG agrees and it is a big feature and as the last meeting it can’t be done. CATT indicates that there is no TP as there is divergence.

- Nokia explains that now we are creating gaps and because of reordering timer we are stalling and it can’t work without it. Nokia thinks that we can also specify that the UE shall not create SN gaps.

- Apple agrees with Nokia and supports P1. Intel also supports this.

- Futurewei explains that this is not like the legacy and in Rel-18 if we need to inform the other entity as the SN cannot be re-used for another PDU. Sony, Huawei, Spreadtrum, Vivo and Lenovo think that there is a problem and it is not very complicated.

- Xiaomi, Oppo, NEC thinks that this is an optimization

- NEC thikns that the gNB knows the problem.

- ZTE also thinks that this is a problem

**Agreements**:

1 [CB] When configured to do so, the transmitting PDCP entity informs the receiving PDCP entity about the discarded SDUs

* [AT124][019][XR] PDCP discard (CATT)

Intended outcome: way forward on PDCP discard and simple solution if agreable

Deadline: Thursday 12-10-2023

R2-2313923 Report of [AT124][019] PDCP discard (CATT) CATT

**PSI based SDU discard – ACT/DEACT MAC CE.**

[R2-2313293](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313293.zip) Discussion on the discard for XR LG Electronics Inc. discussion NR\_XR\_enh-Core

Proposal 1. The activation/deactivation of PSI based SDU discard should be indicated per DRB (revert the previous agreement).

[R2-2312590](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312590.zip) Discussion on discard operation for XR OPPO discussion Rel-18 NR\_XR\_enh-Core

Proposal 2 In the MAC CE for the activation/deactivation of the PSI-based discard, introduce a bitmap for DRB to efficiently control multiple DRBs separately and simultaneously.

Discussion

- Xiaomi doesn’t want to revert the previous agreement

- Ericsson doesn’t see a need to do this complication. If there is a congestion the UE should do it for all DRBs that are configured. Futurewei thinks that the UE can do what it wants and it can chose right logical channel

- Lenovo thinks that we need to consider the case of DC.

- Apple thinks that this is aligning our specifications with SA2. Huawei , Qualcomm agrees and congestion is controlled per DRB. NEC supports.

**Agreements:**

1. In the MAC CE for the activation/deactivation of the PSI-based discard, introduce a bitmap for DRB to efficiently control multiple DRBs separately and simultaneously.

[R2-2312140](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312140.zip) Remaining Issues in Discard Operation Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_XR\_enh-Core

1 *when indicated from upper layer (i.e. PDCP) to discard a particular RLC SDU, the transmitting UM RLC entity shall discard the indicated RLC SDU even if a segment thereof has been submitted to the lower layers.*

- Vivo and Lenovo support

- Qualcomm doesn’t support and LG, Huawei, Samsung don’t want to change legacy text.

- Intel agrees with the intention but not to change legacy text.

- Mediatek, Xiaomi

=> Noted

[R2-2311772](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311772.zip) Remaining issues on PDU discard Qualcomm Incorporated discussion Rel-18 NR\_XR\_enh-Core

[R2-2311824](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311824.zip) Discussion on packet discarding for XR CANON Research Centre France discussion Rel-18 NR\_XR\_enh-Core

[R2-2311908](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311908.zip) Discussion on discard operation for XR vivo discussion Rel-18 NR\_XR\_enh-Core

[R2-2311909](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311909.zip) Enhancement on Transmit/Receipt Operation for PDCP and RLC vivo discussion Rel-18 NR\_XR\_enh-Core

[R2-2311978](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311978.zip) Discussing on PDU discarding of XR traffic Xiaomi Communications discussion

[R2-2312005](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312005.zip) Remaining issues on PDU Set discard Fujitsu discussion Rel-18 NR\_XR\_enh-Core

[R2-2312088](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312088.zip) Discard operation for XR ZTE Corporation, Sanechips discussion

[R2-2312098](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312098.zip) Remaining details on discarding operation for XR Lenovo discussion Rel-18 NR\_XR\_enh-Core

[R2-2312159](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312159.zip) Further details on open topics of discard enhancements Intel Corporation discussion Rel-18 NR\_XR\_enh-Core

[R2-2312330](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312330.zip) Remaining Issues on Discard Operations for XR Apple discussion Rel-18 NR\_XR\_enh-Core

[R2-2312564](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312564.zip) XR discard notification Spreadtrum Communications discussion Rel-18

[R2-2312606](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312606.zip) Discard operation for XR NEC discussion Rel-18 FS\_NR\_XR\_enh

[R2-2312612](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312612.zip) Discussion on discard operation for XR Google Inc. discussion Rel-18 NR\_XR\_enh-Core Revised

[R2-2312717](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312717.zip) Considerations on Discard Operation for XR Samsung R&D Institute India discussion Rel-18

[R2-2312839](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312839.zip) Remaining issues related to discard Sony discussion Rel-18 NR\_XR\_enh-Core

[R2-2313175](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313175.zip) Discard operation for XR InterDigital discussion Rel-18 NR\_XR\_enh-Core

[R2-2313208](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313208.zip) Discard operation for XR CMCC discussion Rel-18 NR\_XR\_enh-Core

[R2-2313437](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313437.zip) Open issues on discarding Futurewei discussion Rel-18 NR\_XR\_enh-Core

[R2-2313438](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313438.zip) Introduction of signaling for notifying SDU discard Futurewei discussion Rel-18 NR\_XR\_enh-Core

[R2-2313549](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313549.zip) Discussion on discard operation for XR Google Inc. discussion Rel-18 NR\_XR\_enh-Core [R2-2312612](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312612.zip) Late

#### 7.5.4.3 Configured Grant enhancements for XR

Including RAN2-specific aspects of unused and/or multiple configured grant (CG) PUSCH transmission occasions in a period of a single CG PUSCH configuration (UTO-UCI, HARQ process determination, etc.).

**Whether to support non-integer periodicity for multi-PUSCH CG;**

[R2-2313460](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313460.zip) Remaining issues on CG enhancement for XR LG Electronics Inc. discussion Rel-18 NR\_XR\_enh-Core

*Proposal 5. There is no need to define non-integer periodicity for multi-PUSCH CG.*

=> Noted

[R2-2312669](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312669.zip) Discussion on CG enhancement for XR CMCC discussion Rel-18 NR\_XR\_enh-Core

*Proposal 5: RAN2 to agree to introduce rational period for CG, as already agreed in DRX.*

Discussion

- Qualcomm thinks that this is about configuration overhead. CMCC agrees with Qualcomm. Nokia thinks that this assumes that network will configure this type of pattern.

- Ericsson thinks that this was a study item in RAN1 and they agreed not to do it. Huawei agrees with Nokia and Ericsson and this is out of scope of WI.

**Agreements**

1 RAN2 will not define non-integer periodicity for multi-PUSCH CG

**How to specify rules for the determination of unused CG occasions;**

[R2-2312250](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312250.zip) Discussion on RAN2 impacts of multi-PUSCH CG Huawei, HiSilicon discussion Rel-18 NR\_XR\_enh-Core

Proposal2: For each PUSCH transmission where UTO-UCI is sent, MAC entity determines the used/unused CG occasions based on the data from the LCH(s) which can be mapped to the corresponding CG configuration.

Proposal3: When determining the unused CG occasions for UTO-UCI, the UE shall consider the following factors:

- whether end of data burst has been identified for the data burst within this CG period

- expected jitter range of the data burst

Proposal4: The UE shall not indicate the CG occasions in CG period #n+1 as unused by the UTO-UCI sent from the other CG period, e.g. CG period #n.

[R2-2313460](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313460.zip) Remaining issues on CG enhancement for XR LG Electronics Inc. discussion Rel-18 NR\_XR\_enh-Core

Proposal 4. UE determines the unused CG PUSCH occasion by UE implementation, considering following factors:

**- The amount of buffered data**

**- Allowed logical channels for CG configuration, based on allowedCG-List**

**- EoDB indication generated during the current CG period**

- Average periodicity of data for logical channels, which can be determined by the upper layer

**Agreements:**

1 UE determines the unused CG PUSCH occasion by considering following factors:

- The amount of buffered data from the LCH(s) which can be transmitted on the corresponding available CG occasions.

[R2-2312331](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312331.zip) UTO-UCI for Multi-PUSCH Configured Grant Apple discussion Rel-18 NR\_XR\_enh-Core

Proposal 1: Specify the following factors as what the UE should at least consider when deriving the

UTO-UCI:

*⁃ Whether the CG timer associating to the HARQ PID of a CG occasion would be running when its PUSCH is to be transmitted/processed, and*

- Qualcomm thinks that the network knows that the CG occasions are not valid. Apple explains that when the UE is deriving the UCI the UE needs to know which of this CG occasions can be used. Nokia explains.

- Google thinks that the UE needs to consider the repetition factor.

- CATT and Huawei thinks that EoDB indication should be used and included as a factor.

⁃ The buffer data volume of LCH(s) that are allowed to use resources of this CG configuration.

**Whether/how to capture unused and/or invalid CG occasion in UL grant reception**

[R2-2312591](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312591.zip) Discussion on configured grant enhancement for XR OPPO discussion Rel-18 NR\_XR\_enh-Core

Proposal 3 In the case of multi-CG occasions configured in a CG period, confirm the remaining and invalid CG is NOT “available for use” as described in the MAC running CR for XR. Remove the Editor’s Notes accordingly, i.e. FFS whether validity requirements should be included in the condition above.

**Indication from MAC to PHY**

[R2-2312669](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312669.zip) Discussion on CG enhancement for XR CMCC discussion Rel-18 NR\_XR\_enh-Core

Proposal 4: MAC and PHY layer interaction for UTO-UCI indication is necessary, but it is a UE implementation issue

[R2-2311773](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311773.zip) Remaining issues on CG enhancements Qualcomm Incorporated discussion Rel-18 NR\_XR\_enh-Core

[R2-2311783](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311783.zip) Configured Grant enhancements for XR Xiaomi discussion Rel-18 NR\_XR\_enh-Core

[R2-2311950](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311950.zip) Leftover issues on configured grant CATT discussion Rel-18 NR\_XR\_enh-Core

[R2-2312006](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312006.zip) Discussions on unused CG PUSCH transmission occasions Fujitsu discussion Rel-18 NR\_XR\_enh-Core

[R2-2312089](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312089.zip) Configured Grant enhancements for XR ZTE Corporation, Sanechips discussion

[R2-2312099](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312099.zip) CG enhancements for XR communications Lenovo discussion Rel-18 NR\_XR\_enh-Core

[R2-2312227](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312227.zip) Remaining issues on CG enhancements Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_XR\_enh-Core

[R2-2312331](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312331.zip) UTO-UCI for Multi-PUSCH Configured Grant Apple discussion Rel-18 NR\_XR\_enh-Core

[R2-2312537](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312537.zip) On Configured Grant enhancements for XR Google Inc. discussion

[R2-2312607](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312607.zip) Set UTO-UCI NEC discussion Rel-18 FS\_NR\_XR\_enh

[R2-2312693](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312693.zip) Discussion on CG enhancements Samsung discussion Rel-18 NR\_XR\_enh-Core [R2-2309967](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2309967.zip)

[R2-2313269](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313269.zip) Discussion on Configured Grant enhancements for XR III discussion NR\_XR\_enh-Core

[R2-2313302](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313302.zip) Configured Grant enhancements for XR Ericsson discussion Rel-18 NR\_XR\_enh-Core

[R2-2313351](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313351.zip) Discussion on configured grant enhancements for XR China Telecom discussion

### 7.5.5 UE capabilities for XR

Including discussion on remaining open issues on UE capabilities for XR from RAN2 perspective.

*=> Companies need to check and think about:*

*- BAT reporting capability required for URLLC*

*- Need a solution that allows URLLC to use BAT reporting without support XR*

[R2-2312157](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312157.zip) Open topics on UE capabilities for Rel-18 XR WI Intel Corporation discussion Rel-18 NR\_XR\_enh-Core

Agreements:

***1 xr-AssistanceInfo-r18* 🡪** Indicates whether UE supports the UE assistance information on UL traffic information to report jitter range, burst arrival time, and data burst periodicity per UL QoS flow as specified in TS 38.331 [9]. ~~UE supporting~~ *~~xr-AssistanceInfo-r18~~* ~~shall also support XR awareness for UL traffic (i.e. ability to identify PDU sets, data bursts, PSI).~~

Change the name of UE capability

2 Introduce a UE capability for C\_DRX enhancement(supportOfCdrxEnhancement) to indicate whether the UE supports DRX cycle with rational numbers and DRX formula with a counter to deal with the C-DRX SFN wrap around issue (as it is now in CR)

Power saving

[R2-2312090](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312090.zip) UE capability aspects of XR ZTE Corporation, Sanechips discussion

*Proposal 6: Introduce a UE capability for C\_DRX enhancement(supportOfCdrxEnhancement) to indicate whether the UE supports DRX cycle with rational numbers and DRX formula with a counter to deal with the C-DRX SFN wrap around issue.*

- Huawei agrees

- Nokia would like to split

- Xiaomi thinks single capability is better as they are working together. Oppo supports as SFN wrap around issue only happens if you support rational number.

[R2-2312602](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312602.zip) Discussion on UE capabilities for XR Huawei, HiSilicon discussion Rel-18 NR\_XR\_enh-Core

*Proposal 1: The UE capability enhancedDRX-r18 in the current TS 38.306 running CR is proposed to be updated to indicate whether the UE supports non-integer long DRX periodicity.*

*Proposal 2: A new additional UE capability (i.e. enhancedShortDRX-r18) should be introduced to indicate whether the UE supports non-integer short DRX periodicity.*

- Nokia, Lenovo doesn’t understand why it is different between long and short. Nokia indicates that we already have a capability for short so if the UE reports short and has the non-integer capability then it supports both.

[R2-2311784](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311784.zip) UE capabilities for XR Xiaomi discussion Rel-18 NR\_XR\_enh-Core

[R2-2311910](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311910.zip) Discussion on CG enhancement for XR vivo discussion Rel-18 NR\_XR\_enh-Core

[R2-2312141](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312141.zip) UE capabilities for Rel-18 XR Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_XR\_enh-Core

[R2-2312332](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312332.zip) Views on UE Capability for XR Apple discussion Rel-18 NR\_XR\_enh-Core

[R2-2312592](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312592.zip) Discussion on UE capabilities for XR OPPO discussion Rel-18 NR\_XR\_enh-Core

[R2-2313094](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313094.zip) Discussion on UE capabilities for XR Ericsson discussion Rel-18 NR\_XR\_enh-Core

[R2-2313409](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313409.zip) UE Capabilities for Rel-18 XR Meta discussion

## 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: 1 TU

Tdoc Limitation: 4 tdocs

### 7.6.1 Organizational

LSs, rapporteur inputs and other organizational documents. Rapporteur inputs and other pre-assigned documents in this AI do not count towards the tdoc limitation.

Including, for each affected spec:

* Updated running CR
* List of open issues to be addressed by company contributions
* (where applicable) CR rapporteur input with proposals for stage-3 issues (e.g. signaling details, parameter values/ranges) where company contributrions should be avoided

based on the outcome of:

[Post123bis][301][IoT-NTN Enh] 36.300 running CR (Ericsson)

[Post123bis][302][IoT-NTN Enh] 36.331 running CR (Huawei)

[Post123bis][303][IoT-NTN Enh] 36.321 running CR (Mediatek)

[Post123bis][304][IoT-NTN Enh] 36.304 running CR (Nokia)

[Post123bis][305][IoT-NTN Enh] 36.306 running CR (Qualcomm)

[R2-2311716](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311716.zip) LS on Rel-18 RAN1 UE features list for LTE after RAN1#114bis (R1-2310634; contact: NTT DOCOMO, AT&T) RAN1 LS in Rel-18 IoT\_NTN\_enh To:RAN2 Cc:RAN4

[R2-2311891](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311891.zip) Introduction of IoT NTN enhancements Huawei, HiSilicon CR Rel-18 36.331 17.6.0 4964 - B IoT\_NTN\_enh-Core

[R2-2311892](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311892.zip) Report of [Post123bis][302][IoT-NTN Enh] 36.331 running CR (Huawei) Huawei, HiSilicon discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2312116](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312116.zip) Stage-3 running CR for TS 36.321 for Rel-18 IoT-NTN MediaTek Inc. draftCR Rel-18 36.321 17.6.0 F IoT\_NTN\_enh-Core

[R2-2312281](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312281.zip) Introduction of Rel-18 IoT NTN UE capabilities Qualcomm Incorporated CR Rel-18 36.306 17.4.0 1872 - B IoT\_NTN\_enh-Core

[R2-2312282](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312282.zip) Rapporteur input to open issues on the introduction of Rel-18 IoT NTN UE capabilities Qualcomm Incorporated draftCR Rel-18 36.306 17.4.0 B IoT\_NTN\_enh-Core

[R2-2313301](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313301.zip) Introduction of IoT NTN enhancements Ericsson CR Rel-18 36.300 17.5.0 1387 1 B IoT\_NTN\_enh-Core [R2-2311244](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311244.zip)

[R2-2313304](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313304.zip) Stage 2 open issues Ericsson discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2313320](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313320.zip) Introduction of IoT-NTN Enhancements Nokia Solutions & Networks (I) CR Rel-18 36.304 17.4.0 0869 - B IoT\_NTN\_enh-Core

[R2-2313321](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313321.zip) Report of [Post123bis][304][IoT-NTN Enh] 36.304 running CR (Nokia) Nokia Solutions & Networks (I) discussion Rel-18

### 7.6.2 Performance Enhancements

#### 7.6.2.1 HARQ enhancements

[R2-2311838](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311838.zip) Remaining Issues on HARQ Enhancement for IoT NTN vivo discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2311958](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311958.zip) Discussion on HARQ enhancement for IoT NTN OPPO discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2312114](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312114.zip) Remaining Issues on HARQ Enhancements in IoT-NTN MediaTek Inc. discussion

[R2-2312244](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312244.zip) Remaining issues of HARQ enhancements ZTE Corporation, Sanechips discussion IoT\_NTN\_enh-Core

[R2-2312283](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312283.zip) Open issues on HARQ enhancements Qualcomm Incorporated discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2312700](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312700.zip) Remaining issues on HARQ enhancements for IoT NTN Nokia, Nokia Shanghai Bell discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2312714](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312714.zip) Remaining issues on HARQ enhancement Huawei, Turkcell, HiSilicon discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2312722](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312722.zip) Discussion on HARQ enhancement open issues Xiaomi discussion Rel-18

[R2-2313300](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313300.zip) R18 IoT NTN HARQ enhancements Ericsson discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2313317](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313317.zip) Discussion on HARQ enhancements in IoT NTN CATT discussion

#### 7.6.2.2 GNSS operation enhancements

[R2-2311839](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311839.zip) Remaining Issues on GNSS Operation for IoT NTN vivo discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2311962](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311962.zip) Discussion on GNSS operation for IoT NTN OPPO discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2311963](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311963.zip) DRAFT LS on GNSS validity duration OPPO LS out Rel-18 IoT\_NTN\_enh-Core To:RAN1

[R2-2312046](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312046.zip) Leftover issues on the GNSS operation enhancements Google Inc. discussion

[R2-2312054](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312054.zip) Discussion on GNSS operation enhancements CATT discussion

[R2-2312115](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312115.zip) Remaining GNSS Enhancement Issues in IoT-NTN MediaTek Inc. discussion

[R2-2312246](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312246.zip) Remaining issues of GNSS enhancements ZTE Corporation, Sanechips discussion IoT\_NTN\_enh-Core

[R2-2312286](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312286.zip) Open issues on GNSS fix in RRC\_CONNECTED Qualcomm Incorporated discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2312353](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312353.zip) Leftover issues in improved GNSS operation Apple discussion Rel-18 IoT\_NTN\_enh

[R2-2312458](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312458.zip) Views on timer handling during GNSS measurement gap Lenovo discussion Rel-18

[R2-2312608](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312608.zip) GNSS operation enhancement NEC discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2312673](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312673.zip) Discussion on GNSS enhancement for IoT-NTN CMCC discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2312701](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312701.zip) Remaining issues on GNSS operation enhancement for IoT NTN Nokia, Nokia Shanghai Bell discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2312715](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312715.zip) Remaining issues on GNSS measurement Huawei, Turkcell, HiSilicon discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2312721](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312721.zip) Discussion on GNSS operation enhancement open issues Xiaomi discussion Rel-18

[R2-2312879](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312879.zip) GNSS acquisition and reporting for IoT NTN Interdigital, Inc. discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2313010](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313010.zip) GNSS measurement procedures in connected mode Samsung R&D Institute UK discussion Rel-18 IoT\_NTN\_enh

[R2-2313299](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313299.zip) R18 IoT NTN GNSS operation enhancements Ericsson discussion Rel-18 IoT\_NTN\_enh-Core

### 7.6.3 Mobility Enhancements

#### 7.6.3.1 Enhancements for neighbour cell measurements

[R2-2311959](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311959.zip) Discussion on mobility enhancement for IoT NTN OPPO discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2312055](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312055.zip) Discussion on leftover issues of mobility enhancements CATT discussion

[R2-2312247](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312247.zip) Remaining issues of mobility enhancements ZTE Corporation, Sanechips discussion IoT\_NTN\_enh-Core

[R2-2312285](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312285.zip) Open issues on measurement and Mobility enhancements Qualcomm Incorporated discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2312355](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312355.zip) Neighbour cell measurements before RLF for eMTC-NTN Apple discussion Rel-18 IoT\_NTN\_enh

[R2-2312764](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312764.zip) Discussion on the remaining issues for the mobility enhancements Xiaomi discussion

[R2-2312860](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312860.zip) Further analysis on open issues for IoT-NTN Mobility Enhancements Nokia, Nokia Shanghai Bell discussion

[R2-2312880](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312880.zip) Fast RLF and re-establishment in the discontinuous coverage scenario Interdigital, Inc. discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2313011](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313011.zip) Enhancements for neighbour cell measurements Samsung R&D Institute UK discussion Rel-18 IoT\_NTN\_enh

[R2-2313078](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313078.zip) Remaining issues on mobility enhancements Huawei, HiSilicon, Turkcell discussion Rel-18 IoT\_NTN\_enh-Core

=> Revised in [R2-2313586](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313586.zip)

[R2-2313586](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313586.zip) Remaining issues on mobility enhancements Huawei, HiSilicon, Turkcell discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2313228](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313228.zip) Neighbour cell measurements in IoT NTN Ericsson discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2313229](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313229.zip) Discussion on triggering RA for RRC connection re-establishment in IoT NTN Ericsson discussion Rel-18 IoT\_NTN\_enh-Core

#### 7.6.3.2 Other

[R2-2311840](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311840.zip) Discussion on CHO Enhancement for IoT NTN vivo discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2312354](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312354.zip) Leftover issues for mobility enhancement in IoT NTN Apple discussion Rel-18 IoT\_NTN\_enh

[R2-2312459](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312459.zip) Views on providing NB-IoT UE location information Lenovo discussion Rel-18

[R2-2312878](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312878.zip) CHO enhancement for earth-moving cells Interdigital, Inc. discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2313012](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313012.zip) On other mobility enhancements for IoT NTN Samsung R&D Institute UK discussion Rel-18 IoT\_NTN\_enh

### 7.6.4 Enhancements to discontinuous coverage

[R2-2311841](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311841.zip) Discussion on Discontinuous Coverage vivo discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2312048](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312048.zip) Leftover issues on the discontinuous coverage Google Inc. discussion

[R2-2312056](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312056.zip) Discussion on open issues for discontinuous coverage CATT discussion

[R2-2312199](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312199.zip) Considerations on Supporting Discontinuous Coverage NEC discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2312248](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312248.zip) Paging window alignment in discontinuous coverage ZTE Corporation, Sanechips discussion IoT\_NTN\_enh-Core

[R2-2312284](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312284.zip) UE Autonomous release in discontinuous coverage Qualcomm Incorporated discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2312460](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312460.zip) Views on some remaining issues for discontinuous coverage Lenovo discussion Rel-18

[R2-2312631](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312631.zip) Discussion on enhancement to discontinuous coverage for IoT NTN Transsion Holdings discussion Rel-18

[R2-2312716](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312716.zip) Remaining issues on discontinuous coverage Huawei, Turkcell, HiSilicon discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2312723](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312723.zip) Discussion on Discontinuous coverage open issues Xiaomi discussion Rel-18

[R2-2312861](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312861.zip) Discussion on remaining issues discontinuous coverage Enhancements Nokia, Nokia Shanghai Bell discussion

[R2-2312881](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312881.zip) RRC Release in discontinuous coverage Interdigital, Inc. discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2313296](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313296.zip) Enhancements to Discontinuous Coverage SHARP Corporation discussion

[R2-2313397](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313397.zip) Enhancements to discontinuous coverage Samsung discussion Rel-18 IoT\_NTN\_enh-Core

## 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: 1 TU

Tdoc Limitation: 4 tdocs

### 7.7.1 Organizational

LSs, rapporteur inputs and other organizational documents. Rapporteur inputs and other pre-assigned documents in this AI do not count towards the tdoc limitation.

Including, for each affected spec:

* Updated running CR
* List of open issues to be addressed by company contributions
* (where applicable) CR rapporteur input with proposals for stage-3 issues (e.g. signaling details, parameter values/ranges) where company contributrions should be avoided

based on the outcome of:

[Post123bis][306][NR-NTN Enh] 38.300 running CR (Thales)

[Post123bis][307][NR-NTN Enh] 38.331 running CR (Ericsson)

[Post123bis][308][NR-NTN Enh] 38.321 running CR (Interdigital)

[Post123bis][309][NR-NTN Enh] 38.304 running CR (ZTE)

[Post123bis][310][NR-NTN Enh] EU caps running CRs (Intel)

[Post123bis][311][NR-NTN Enh] 37.355 running CR (CATT)

[R2-2312162](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312162.zip) Open topics on UE capabilities for Rel-18 NR NTN Enh. WI including summary report of email discussion [Post123bis][310] Intel Corporation discussion Rel-18 NR\_NTN\_enh-Core

[R2-2312163](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312163.zip) UE capabilities for Rel-18 NR NTN Enh. WI Intel Corporation draftCR Rel-18 38.306 17.6.0 NR\_NTN\_enh-Core

[R2-2312164](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312164.zip) UE capabilities for Rel-18 NR NTN Enh. WI Intel Corporation draftCR Rel-18 38.331 17.6.0 NR\_NTN\_enh-Core

[R2-2312210](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312210.zip) Introduction of NR NTN enhancements in 38.304 ZTE Corporation, Sanechips CR Rel-18 38.304 17.6.0 0357 - B NR\_NTN\_enh-Core

[R2-2312276](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312276.zip) Multi-RTT positioning in NTN Qualcomm Incorporated draftCR Rel-18 38.305 17.6.0 B NR\_NTN\_enh-Core

[R2-2312857](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312857.zip) Remaining Issues on NR Non-Terrestrial Networks (NTN) THALES discussion Rel-18 NR\_NTN\_enh-Core

[R2-2312858](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312858.zip) Introduction of NTN enhancements THALES CR Rel-18 38.300 17.6.0 0734 - B NR\_NTN\_enh-Core

[R2-2313002](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313002.zip) MAC open issues in NTN InterDigital discussion Rel-18 NR\_NTN\_enh-Core

[R2-2313014](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313014.zip) Introduction of RACH-less handover to TS 38.321 InterDigital, Samsung CR Rel-18 38.321 17.6.0 1716 - B NR\_NTN\_enh-Core, NR\_mobile\_IAB-Core [R2-2309345](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2309345.zip) Late

[R2-2313225](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313225.zip) Introduction of network verification of UE location in TS 37.355 CATT CR Rel-18 37.355 17.6.0 0482 - B NR\_NTN\_enh-Core

[R2-2313226](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313226.zip) LPP stage-3 issue and open issue status for Rel-18 NR NTN CATT (Rapporteur) Work Plan Rel-18 NR\_NTN\_enh-Core

[R2-2313531](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313531.zip) Introduction of Rel-18 NR NTN enhancements Ericsson CR Rel-18 38.331 17.6.0 4501 - B NR\_NTN\_enh-Core

[R2-2313533](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313533.zip) TS 38.331 Open Issue List for NR NTN Rel-18 Ericsson discussion Rel-18 NR\_NTN\_enh-Core

### 7.7.2 Coverage Enhancements

[R2-2311960](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311960.zip) Discussion on PUCCH enhancement for Msg4 HARQ-ACK in NR NTN OPPO discussion Rel-18 NR\_NTN\_enh-Core

[R2-2312052](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312052.zip) Discussion on remaining issue for NR NTN coverage enhancement CATT discussion

[R2-2312280](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312280.zip) UE capability indication for Msg4 ACK repetition Qualcomm Incorporated discussion Rel-18 NR\_NTN\_enh-Core

[R2-2312649](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312649.zip) Considerations on the coverage enhancements CMCC discussion Rel-18 NR\_NTN\_enh-Core

[R2-2312702](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312702.zip) Msg3 indication for PUCCH repetition for Msg4 HARQ-ACK Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_NTN\_enh-Core

[R2-2312789](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312789.zip) Consideration on remaining coverage enhancements issues ZTE Corporation, Sanechips discussion

[R2-2312908](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312908.zip) Further consideration on PUCCH repetition for Msg4 HARQ-ACK Huawei, HiSilicon discussion Rel-18 NR\_NTN\_enh-Core

[R2-2313003](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313003.zip) Coverage enhancement in Non-Terrestrial Networks InterDigital discussion Rel-18 NR\_NTN\_enh-Core

[R2-2313294](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313294.zip) Indication for Msg3 based request for PUCCH repetition LG Electronics Inc. discussion NR\_NTN\_enh-Core

### 7.7.3 Network verified UE location

[R2-2312121](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312121.zip) Remaining Issues in Network verified UE Location MediaTek Inc. discussion

[R2-2312461](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312461.zip) Views on cell change during UE location verification Lenovo discussion Rel-18

[R2-2312517](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312517.zip) Discussion on network verified UE location Ericsson discussion Rel-18 NR\_NTN\_enh-Core

[R2-2312650](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312650.zip) Discussion on network verified UE location CMCC discussion Rel-18 NR\_NTN\_enh-Core

[R2-2312713](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312713.zip) Remaining issues on UE location verification Huawei, Turkcell, HiSilicon discussion Rel-18 NR\_NTN\_enh-Core

[R2-2312948](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312948.zip) UE location verification by Network NEC Telecom MODUS Ltd. discussion [R2-2310985](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310985.zip)

[R2-2313007](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313007.zip) Network Verified UE Location in NTN Samsung Electronics Iberia SA discussion Rel-18 NR\_NTN\_enh-Core

[R2-2313050](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313050.zip) Remaining Aspects on Network Verified UE Location Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_NTN\_enh-Core

[R2-2313346](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313346.zip) Discussion on network verified UE location in NR NTN IPLOOK discussion Rel-18

### 7.7.4 NTN-TN and NTN-NTN mobility and service continuity enhancements

[R2-2313530](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313530.zip) NTN neighbour cell information in TN cells Ericsson, Thales, Apple, Samsung, Deutsche Telekom, Qualcomm discussion Rel-18 NR\_NTN\_enh-Core

#### 7.7.4.1 Cell reselection enhancements

[R2-2311834](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311834.zip) Remaining Issues on Cell Reselection for NR NTN vivo discussion Rel-18 NR\_NTN\_enh-Core

[R2-2311888](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311888.zip) Cell (re)selection – discussion on broadcasting SIB19 in terrestrial networks PANASONIC discussion

[R2-2311967](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311967.zip) Discussion on the change of TN coverage information OPPO discussion Rel-18 NR\_NTN\_enh-Core

[R2-2311968](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311968.zip) Discussion on support of NTN neighbor cell info in TN cell OPPO discussion Rel-18 NR\_NTN\_enh-Core

[R2-2312104](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312104.zip) Remaining issues of cell reselection enhancement Samsung discussion Rel-18 NR\_NTN\_enh-Core

[R2-2312277](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312277.zip) Cell coverage info and measurements Qualcomm Incorporated discussion Rel-18 NR\_NTN\_enh-Core

[R2-2312291](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312291.zip) NTN-TN cell reselection enhancement Apple discussion Rel-18 NR\_NTN\_enh-Core

[R2-2312462](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312462.zip) Views on providing NTN information in TN cell Lenovo discussion Rel-18

[R2-2312547](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312547.zip) Discussions on providing NTN neighbor cell information in TN cell ITRI discussion NR\_NTN\_enh-Core

[R2-2312644](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312644.zip) Remaining issues on cell reselection enhancements ZTE Corporation, Sanechips discussion Rel-18 NR\_NTN\_enh-Core

[R2-2312651](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312651.zip) Discussion on NTN-TN cell reselection CMCC discussion Rel-18 NR\_NTN\_enh-Core

[R2-2312841](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312841.zip) Support of NTN neighbour cell info in TN cells Sony discussion Rel-18 NR\_NTN\_enh

[R2-2312949](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312949.zip) TN-NTN Mobility NEC Telecom MODUS Ltd. discussion

[R2-2312950](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312950.zip) On the use of TN coverage signalling to indicate non-TN areas NEC Telecom MODUS Ltd. discussion [R2-2310986](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310986.zip)

[R2-2313079](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313079.zip) Discussion on TN broadcasting NTN assistance information Huawei, HiSilicon, Turkcell discussion Rel-18 NR\_NTN\_enh-Core

[R2-2313401](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313401.zip) Remaining issues on NTN-TN cell reselection enhancement LG Electronics France discussion Rel-18 38.331 NR\_NTN\_enh [R2-2309862](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2309862.zip)

=> Revised in [R2-2313552](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313552.zip)

[R2-2313552](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313552.zip) Remaining issues on NTN-TN cell reselection enhancement LG Electronics France, Google Inc., Thales discussion Rel-18 38.331 NR\_NTN\_enh [R2-2313401](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313401.zip)

[R2-2313411](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313411.zip) Discussion on NTN-TN cell reselection enhancements ETRI discussion Rel-18 NR\_NTN\_enh

[R2-2313481](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313481.zip) Support of NTN neighbor cell info in TN cell Sequans Communications discussion Rel-18 NR\_NTN\_enh-Core

[R2-2313506](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313506.zip) Discussion on mobility enhancements for VSAT THALES discussion Rel-18 NR\_NTN\_enh [R2-2310046](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310046.zip) Late

[R2-2313532](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313532.zip) Cell reselection enhancements for hard switch Ericsson discussion Rel-18 NR\_NTN\_enh-Core

#### 7.7.4.2 Connected mode enhancements

[R2-2312609](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312609.zip) FFS issues of unchanged PCI solution NEC discussion Rel-18 NR\_NTN\_enh-Core

[R2-2313051](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313051.zip) Remaining issues for IDLE and CONNECTED mode mobility in Rel-18 NTN Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_NTN\_enh-Core

[R2-2313052](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313052.zip) Remaining Issues for Satellite Switching without L3 Mobility Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_NTN\_enh-Core

[R2-2313080](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313080.zip) Discussion on HO enhancements Huawei, HiSilicon, Turkcell discussion Rel-18 NR\_NTN\_enh-Core

[R2-2313529](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313529.zip) Remaining issues with connected mode enhancements Ericsson discussion Rel-18 NR\_NTN\_enh-Core

##### 7.7.4.2.1 Handover enhancements

[R2-2311835](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311835.zip) Remaining Issues on CHO Enhancements for NR NTN vivo discussion Rel-18 NR\_NTN\_enh-Core

[R2-2311836](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311836.zip) Remaining Issues on RACH-less for R18 NR NTN vivo discussion Rel-18 NR\_NTN\_enh-Core

[R2-2311859](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311859.zip) Remaining Issues on RACH-less for R18 NR NTN Quectel Work Plan Rel-18

[R2-2311966](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311966.zip) Discussion on handover enhancement for NR NTN OPPO discussion Rel-18 NR\_NTN\_enh-Core

[R2-2312053](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312053.zip) Configuration for location-based CHO for earth-moving cell CATT discussion

[R2-2312057](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312057.zip) Discussion on RACH-less HO in NR NTN CATT discussion

[R2-2312105](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312105.zip) Remaining issues on Handover enhancements Samsung discussion Rel-18 NR\_NTN\_enh-Core

[R2-2312278](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312278.zip) Open issues for handover enhancements Qualcomm Incorporated discussion Rel-18 NR\_NTN\_enh-Core

[R2-2312292](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312292.zip) CHO enhancement to earth moving target cell Apple discussion Rel-18 NR\_NTN\_enh-Core

[R2-2312356](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312356.zip) Open issues on RACH-less in NR NTN Apple discussion Rel-18 NR\_UAV

[R2-2312463](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312463.zip) Some remaining issues for CHO and RACH-less HO in NTN Lenovo discussion Rel-18

[R2-2312500](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312500.zip) Remaining issue for RACH-less Sharp discussion Rel-18 NR\_NTN\_enh-Core

[R2-2312763](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312763.zip) Discussion on the remaining issues for the handover enhancements Xiaomi discussion

[R2-2312790](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312790.zip) Consideration on RACH-less HO remaining issues ZTE Corporation, Sanechips discussion

[R2-2312840](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312840.zip) Signaling overhead reduction during NTN-NTN HOs Sony discussion Rel-18 NR\_NTN\_enh

[R2-2313004](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313004.zip) Remaining open issues: RACH-less handover InterDigital discussion Rel-18 NR\_NTN\_enh-Core

[R2-2313005](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313005.zip) Remaining open issues: CHO for Earth-moving cells InterDigital discussion Rel-18 NR\_NTN\_enh-Core

[R2-2313190](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313190.zip) Discussion on CHO configuration for moving cell location ASUSTeK discussion Rel-18 NR\_NTN\_enh-Core

[R2-2313297](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313297.zip) Remaining open issues on RACH-less HO for NTN ETRI discussion Rel-18

[R2-2313399](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313399.zip) Remaining issues on handover enhancements LG Electronics France discussion Rel-18 38.331 NR\_NTN\_enh

##### 7.7.4.2.2 Unchanged PCI satellite switch

Including report of [Post123bis][312][NR-NTN Enh] Unchanged PCI (CMCC/Apple). Company contributions on aspects handled in [Post123bis][312] might be down-prioritized.

[R2-2311837](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311837.zip) Remaining Issues on Service Link Switching with Unchanged PCI vivo discussion Rel-18 NR\_NTN\_enh-Core

[R2-2311849](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311849.zip) Discussion on unchanged PCI mechanism Quectel discussion Rel-18

[R2-2311989](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311989.zip) Signalling design of satellite switching with PCI unchanged China Telecom discussion Rel-18 NR\_NTN\_enh-Core

[R2-2312047](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312047.zip) Leftover issues on the unchanged PCI satellite switch Google Inc. discussion

[R2-2312058](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312058.zip) Discussion on unchanged PCI mechanism CATT discussion

[R2-2312106](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312106.zip) Remaining issues on PCI unchanged satellite switch Samsung discussion Rel-18 NR\_NTN\_enh-Core

[R2-2312120](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312120.zip) On Outstanding Issues in Unchanged PCI in LEO NTN MediaTek Inc. discussion

[R2-2312279](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312279.zip) Major issues for satellite switch with PCI unchanged Qualcomm Incorporated discussion Rel-18 NR\_NTN\_enh-Core

[R2-2312293](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312293.zip) Satellite switching with unchanged PCI Apple discussion Rel-18 NR\_NTN\_enh-Core

[R2-2312464](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312464.zip) On some remaining issues for PCI-unchanged scenario Lenovo discussion Rel-18

[R2-2312546](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312546.zip) Discussions on SMTC configuration for satellite switch without PCI change ITRI discussion NR\_NTN\_enh-Core

[R2-2312632](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312632.zip) Discussion on remaining issues of soft and hard satellite switch with PCI unchanged Transsion Holdings discussion Rel-18 Withdrawn

[R2-2312645](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312645.zip) Usage and signaling of t-start ZTE Corporation, Sanechips discussion Rel-18 NR\_NTN\_enh-Core

[R2-2312646](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312646.zip) Discussion on remaining issues of soft and hard satellite switch with PCI unchanged Transsion Holdings discussion Rel-18

[R2-2313006](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313006.zip) Remaining open issues: Satellite switching without PCI change InterDigital discussion Rel-18 NR\_NTN\_enh-Core

[R2-2313191](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313191.zip) Discussion on remaining issue for unchanged PCI switch ASUSTeK discussion Rel-18 NR\_NTN\_enh-Core

[R2-2313206](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313206.zip) Report of [Post123bis][312][NR-NTN Enh] Unchanged PCI CMCC, Apple discussion Rel-18 NR\_NTN\_enh-Core

[R2-2313279](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313279.zip) Remaining issues on Unchanged PCI ITL discussion Rel-18

[R2-2313400](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313400.zip) Remaining issues on unchanged PCI LG Electronics France discussion Rel-18 38.331 NR\_NTN\_enh

[R2-2313475](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313475.zip) Unchanged PCI satellite switch considerations Sequans Communications discussion Rel-18 NR\_NTN\_enh-Core

## 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: 1 TU

Tdoc Limitation: 3

### 7.8.1 Organizational

Stage 2 running CR expected as input to this meeting

Expected input: Running CRs for 38.331 (Qualcomm), 38.300 (Nokia)

Expected input after capability discussions: 38.306 and 36.306 (Huawei)

Including outcome of [POST123bis][025][UAV] Running CR 38.331 (Qualcomm)

*Contributions on open issues addressed explicitly by the email discussions 25 should be avoided*

**WI Rapporteur input**

[R2-2313053](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313053.zip) Uncrewed Aerial Vehicles in Rel-18 - Updated Workplan Nokia, Nokia Shanghai Bell Work Plan Rel-18 NR\_UAV-Core

=> Noted

[R2-2313054](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313054.zip) Work Item Agreements for Uncrewed Aerial Vehicles in Rel-18 Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_UAV-Core

=>Noted

**Running CRs**

NR CRs

[R2-2312230](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312230.zip) Introduction of NR Support for UAV (Uncrewed Aerial Vehicles) Qualcomm Incorporated CR Rel-18 38.331 17.6.0 4416 - B NR\_UAV-Core, LTE\_UAV\_enh-Core [R2-2309611](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2309611.zip) Late

=> The CR is endorsed and will be updated further

To be updated after UE capability discssion

[R2-2312851](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312851.zip) Introduction of NR Support for UAV Huawei, HiSilicon CR Rel-18 38.306 17.6.0 0965 1 B NR\_UAV-Core [R2-2310936](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310936.zip)

[R2-2312240](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312240.zip) UE capabilities for NR Support for UAV (Uncrewed Aerial Vehicles) Qualcomm Incorporated draftCR Rel-18 38.331 17.6.0 B NR\_UAV-Core Late

[R2-2313055](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313055.zip) Introduction of NR Support for Uncrewed Aerial Vehicles Nokia, Nokia Shanghai Bell CR Rel-18 38.300 17.6.0 0736 - B NR\_UAV-Core

=> The CR is endorsed

**LTE CRs**

[R2-2313056](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313056.zip) Introduction of Enhanced LTE Support for Uncrewed Aerial Vehicles Nokia, Nokia Shanghai Bell CR Rel-18 36.300 17.5.0 1389 - B LTE\_UAV\_enh

=> The CR is endorsed

[R2-2312242](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312242.zip) Introduction of Enhanced LTE Support for UAV (Uncrewed Aerial Vehicles) Qualcomm Incorporated CR Rel-18 36.331 17.6.0 4967 - B LTE\_UAV\_enh-Core Late

[R2-2312852](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312852.zip) Introduction of Enhanced LTE Support for UAV Huawei, HiSilicon CR Rel-18 36.306 17.4.0 1871 1 B LTE\_UAV\_enh-Core [R2-2310942](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310942.zip)

* The CR is revised to include the correct WI code

**NS/OOBE**

[R2-2312245](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312245.zip) Report of [POST123bis][025][UAV] 38.331 Running CR (Qualcomm) including remaining open issues Qualcomm Incorporated discussion Rel-18 NR\_UAV-Core, LTE\_UAV\_enh-Core

*Proposal 6: NR SIB5 includes aerial specific EUTRA NS values.*

Proposal 7: Postpone discussion on UE capability indicating support of the mechanisms defined for cells broadcasting Aerial-specific emission list (to be discussed with other capability discussion).

=> Noted

**Agreements**

1. NR SIB5 includes aerial specific EUTRA NS values and SIB24 includes aerial specific NR NS values
2. Check if RAN4 if RAN2 needs to add additionaPmax-r18 in IE NR-NS-PmaxValueAerial-r18

[R2-2312647](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312647.zip) Remaining aspects for UAV measurement reports, NS values and capabilities Ericsson discussion Rel-18 NR\_UAV-Core (moved from 7.8.2)

Proposal 3: RAN2 not to add additionaPmax-r18 in IE NR-NS-PmaxValueAerial-r18

- Samsung thinks that we can add it as optional and use it late

=> Noted

**UE capabilities**

*Response to RAN4 on UAV-specific capability*

[R2-2313089](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313089.zip) Discussion on RAN4 question on UE capability and DRAFT reply Qualcomm Incorporated discussion Rel-18 NR\_UAV-Core, LTE\_UAV\_enh-Core

Proposal 1: Introduce a UE capability indication for NR to indicate that the UE supports Rel-18 UAV enhancements.

Proposal 3: Send LS reply to RAN4 with RAN2 agreements. (Draft is provided in the Annex)

[R2-2312647](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312647.zip) Remaining aspects for UAV measurement reports, NS values and capabilities Ericsson discussion Rel-18 NR\_UAV-Core (moved from 7.8.2)

Proposal 4: RAN2 not to introduce a standalone aerial UE capability to indicate whether a UE is an aerial UE.

Discussion

- Qualcomm indicates that in Rel-15 during ASN.1 review it was determined that it was better to have one UE capability group especially when we have a lot of capabilities for a feature.

- Nokia agrees with Qualcomm although grouping capabilities removes flexibility if we want to reuse some capabilities for other purposes

- Samsung thinks that if we use the LTE approach we don’t have to group but it is cleaner to group. ZTE agrees with Samsung

- Huawei thinks that we can group and link the NS value to this group

- Ericsson is concerned with the case that it is not an aerial UE but it supports something like height reporting.

*General UAV capabilities*

[R2-2312833](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312833.zip) Discussion on UE capabilities for UAV Huawei, HiSilicon discussion Rel-18 NR\_UAV-Core [R2-2310935](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310935.zip)

Proposal 1: RAN2 to consider to define height-meas-r18, height-dependent-configurations-r18, multipleCellsMeasExtension-r18, flightPathPlan-r18 and sl-A2X-Service-r18 as UE capabilities for NR UAV as described above.

- *multipleCellsMeasExtension-r18 - This field defines whether the UE supports measurement reporting triggered based on a number of cells*

- Qualcomm want to separate baseline number of triggering cells and height dependent triggering cells

*flightPathAvailabilityIndication in UAI-r18*

- Nokia doesn’t think it needs to be signaled separately. Qualcomm thinks it is just following UAI capabilities. Samsung explains that if it doesn’t support availability indication it would follow LTE mechanism. Huawei thinks that we are breaking it too much and flight path should be implemented as a full thing.

- Samsung is concerned that if we have a single capability then we need to implement a new feature as we have already implemented LTE

*nr-NS-PmaxListAerial-r18*

- Ericsson asks if it is possible to have a UE support NS value but not height reporting. Qualcomm explains that a UE that doesn’t have to go to Europe doesn’t need to support the NS value. Samsung thinks that if the UE supports UAV and the frequency that requies NS value.

- Nokia asks why don’t we follow the normal UE process, where NS values don’t have their own capabilities.

[R2-2313057](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313057.zip) On UE Capabilities for Rel-18 UAVs Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_UAV-Core

*List of possible UAV capabilities:*

* *The support for flight path plan*
* *Height-based measurement reporting Events H1 and H2*
* *Measurement report triggering based on the number of cells (numberOfTriggeringCells)*
* *Height-dependent ssb-toMeasure*
* *Combined events AxHy*
* *A2X via Sidelink (i.e. BRID and DAA)*
* *OOBE requirements (NS values for Aerial UEs)*

Proposal 4: NR Aerial UE capabilities are introduced per-UE. No need to differentiate per FDD/TDD bands nor to consider bands/band combinations.

[R2-2313360](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313360.zip) Remaining aspects of PC5-based BRID and DAA support and UE capabilities Qualcomm Incorporated discussion Rel-18 NR\_UAV-Core, LTE\_UAV\_enh-Core [R2-2313091](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313091.zip)

*Proposal 2. sl-A2X-Service-r18 capability (support of dedicated resource pool for A2X service) is per FS, with ENUMERATED candidate values ‘brid’, ‘daa’ and ‘bridAndDAA’.*

*Proposal 3. It is optional for UAV to support PC5-based BRID and/or DAA. The capability indication is per FS, with ENUMERATED candidate values ‘brid’, ‘daa’ and ‘bridAndDAA’.*

*Proposal 4. Discuss potential A2X use cases (e.g., receive-only, transmit-only) and decide how to define and specify A2X capability signalling for UAVs.*

- Ericsson asks why we need granularity. Qualcomm explains that we can’t mandate a UE to support all the two functionalities. Huawei agrees with Qualcomm.

**Agreements on UE capabilities**

- Introduce a UE capability indication for NR to indicate that the UE supports Rel-18 UAV enhancements

- Define the following RAN2 capabilities (names to be discussed offline0:

- altitude-meas-r18 and make it conditionally mandatory (CY)

- multipleCellsMeasExtension-r18 - This field defines whether the UE supports measurement reporting triggered based on a number of cells (CY)

- new capability to support AxHy that also means you support altitudeBasedNumberOfTriggeringCells (feature) (Optional)

- altitudeBasedSSB-ToMeasure-r18 (Optional)

- for flight path reporting, we will introduce two capabilities flightPathReporting-r18 and flightPathAvailabilityIndication-r18 for UAI. (optional)

- Understanding is that a UE that doesn’t support any frequency band that requires a aerial specific NS value, doesn’t need to implement the procedure for NS value. FFS whether a capability need is needed.

- sl-A2X capability, with BRID, DAA, and both granularity, that also means that it supports dedicated A2X pools. FFS if it is per UE or FS (as working assumption for CR we implement per UE)

* [AT124][005][UAV] LS to RAN4 (Nokia)

- Aproved LS to RAN4 sharing our UE capabilities and question on NS values.

- Deadline: Thursday (to be approved by email)

[R2-2313404](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313404.zip) Discussion on UE capability for UAV features vivo discussion NR\_UAV-Core

### 7.8.2 Measurement reporting for mobility and interference control

Contributions should focus on further details related enhancement to measurement reports taking into account agreements made in previous meetings

[R2-2312245](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312245.zip) Report of [POST123bis][025][UAV] 38.331 Running CR (Qualcomm) including remaining open issues Qualcomm Incorporated discussion Rel-18 NR\_UAV-Core, LTE\_UAV\_enh-Core (moved from 7.8.1)

**Agreements**

1 No new agreements or spec impact is expected to address previous FFS: UE behavior with respect to cell list is already clear when it switches to a new height range in either SSB to Measure or in eventAxHy.

2 RAN2 understands if the UE is already in the corresponding altitude range at the time of configuration, similar to legacy behavior for other events, the UE triggers measurement reporting based on the configured event after the TTT expiry (assuming everything else remaining the same). No spec impact is expected.

3 As currently captured in the running CR: Use single IE (Altitude-r18) for both configuration and reporting inline with agreement from RAN2#123. Granularity for both reporting and configuration would be 1m.

4 RAN2 understands the existing procedure “include the concerned cell(s) in the cellsTriggeredList” means adding only the cells not already in the list. Revmove related Editor’s Note. No spec change is needed.

**Remaining issues: AxHx configuration**

*Multiple H1/H2 configuration*

[R2-2312822](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312822.zip) Measurement report enhancement for NR UAV Huawei, HiSilicon discussion Rel-18 NR\_UAV-Core [R2-2310931](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310931.zip)

Proposal 1: If the NW configures multiple event H1/H2 or multiple height-dependent configurations/ measurement events, the UAV should choose the one of them whose distance is the smallest between the altitude of the UAV and the **triggered** height threshold to trigger or the application of the corresponding event or of the MR configuration.

[R2-2313314](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313314.zip) On UAV Measurement Reporting Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_UAV-Core

Proposal 1: Adopt the text proposal provided in the annex to define the height-range selection procedure for Events AxHy.

*• if more than one Event A3H1 is configured, the UE shall select as the active Event A3H1 the one for which the entering condition A3H1-2 has most recently been satisfied, and shall not evaluate the entering condition A3H1-1 for any other configured, but inactive Event A3H1;*

Proposal 2: If it is determined that an Aerial UE is in a height range at the time of configuration, discuss whether the Aerial UE should select its first active Event AxHy (option 1) or if a standardized rule should be defined to do so (option 2).

Proposal 3: To account for Events AxHy configured with and without numberOfTriggeringCells, adopt the above text proposal that modifies the originally proposed text proposal.

Discussion

- Vivo thinks that same issue exists for LTE and we should keep same behaviour.

- Ericsson and Vivo think that the height range wouldn’t have this issue.

- Samsung thinks that just triggering one is not a good way to go.

- Interdigital say that we could have it configurable whether the UE reports multiple MR or we adopt HW proposal. Qualcomm and Huawei agrees.

- Apple thinks that there is nothing wrong with current solution, we just report multiple reports. ZTE thinks that if the UE triggers multiple MR the network may reconfigure based on the first received report, so we prefer the UE to report only one report.

*Clarification on entry condition*

[R2-2313436](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313436.zip) Remaining issues on measurement reporting enhancements in NR UAV Samsung discussion Rel-18 NR\_UAV-Core

Proposal 5: Introduce new procedure text on the entry condition applicable for eventAxHy.

**Remaining issues: SSB-ToMeasure**

[R2-2313436](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313436.zip) Remaining issues on measurement reporting enhancements in NR UAV Samsung discussion Rel-18 NR\_UAV-Core

*Proposal 3: altitudeHyst-r18 is not considered in the entering condition of the altitude range configured by ssb-ToMeasureAltitudeBased-r18.*

*Proposal 4: The ssb-ToMeasure-r18 field in SSB-ToMeasureAltitudeBased-r18 should be optional field, and it should be clarified in field description that if the field is not configured, the UE measures on all SS blocks within the corresponding altitude range.*

- Qualcomm doesn’t think that it should be optional. Samsung would like to have the option that the network allows the UE to measure all SSBs without having to signal the ssb-to-measure. Qualcomm thinks that this is already possible.

=> Noted

[R2-2312231](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312231.zip) Remaining issues for altitude-based SSB-ToMeasure ZTE Corporation, Sanechips discussion Rel-18 NR\_UAV-Core

Proposal 1: The UE applies the combination of SSB-ToMeasure values of the overlapped altitude ranges when it is within more than one altitude ranges. FFS on the spec impact.

=> Noted

**Agreements:**

1. altitudeHyst-r18 is not considered in the entering condition of the altitude range configured by ssb-ToMeasureAltitudeBased-r1.
2. the ssb-ToMeasure-r18 field in SSB-ToMeasureAltitudeBased-r18 should be optional field, and it should be clarified in field description that if the field is not configured, the UE measures on all SS blocks within the corresponding altitude range.

Not Treated

[R2-2312197](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312197.zip) Remaining Issues on Measurement Reports Enhancements NEC discussion Rel-18 NR\_UAV-Core

[R2-2312232](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312232.zip) Remaining issues for event AxHy ZTE Corporation, Sanechips discussion Rel-18 NR\_UAV-Core

[R2-2312652](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312652.zip) Discussion on measurement reporting CMCC discussion Rel-18 NR\_UAV-Core

[R2-2313084](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313084.zip) Discussion on measurement reporting for event AxHy Sharp discussion

[R2-2313171](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313171.zip) Remaining issues for measurement reporting enhancements Xiaomi discussion Rel-18 NR\_UAV-Core

[R2-2313341](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313341.zip) Further discussion on measurement reporting for NR UAV China Telecom discussion

[R2-2313358](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313358.zip) On UE capability related to measurement enhancements Qualcomm Incorporated discussion Rel-18 NR\_UAV-Core

[R2-2313405](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313405.zip) Remaining issue on measurement reporting for mobility and interference control vivo discussion NR\_UAV-Core

### 7.8.3 Flight path reporting

*Contributions on stage-3 detailes (not discussed in email discussion) reltaed to flight path reporting*

**Response LS to RAN3**

[R2-2312245](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312245.zip) Report of [POST123bis][025][UAV] 38.331 Running CR (Qualcomm) including remaining open issues Qualcomm Incorporated discussion Rel-18 NR\_UAV-Core, LTE\_UAV\_enh-Core (moved from 7.8.1)

*Proposal 5a: (9/10) Include FlightPathInfoReport in AS-Context within HandoverPreparationInformation (as already captured in the running CR).*

*Proposal 5b: Reply to RAN3 LS indicating agreement (from proposal 5a) about signalling details. [ZTE to provide draft LS]*

- Huawei wonders why we did something different than what we told RAN3. Qualcomm indicates that this is simpler.

[R2-2312234](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312234.zip) [DRAFT] Reply LS on flightpath information forwarding for UAV ZTE Corporation, Sanechips LS out Rel-18 NR\_UAV-Core To:RAN3

=> The LS is approved in R2-2313869

**Open Issues: Email discussion**

[R2-2312245](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312245.zip) Report of [POST123bis][025][UAV] 38.331 Running CR (Qualcomm) including remaining open issues Qualcomm Incorporated discussion Rel-18 NR\_UAV-Core, LTE\_UAV\_enh-Core (moved from 7.8.1)

*Proposal 8: Discuss the FFSes on value/range for FlightPathUpdateDistanceThr-r18 and FlightPathUpdateTimeThr-r18.*

*Proposal 9: UE initiate transmission of UAI again to the target cell if a UAI transmission was initiated during the last 1 second before receiving the reconfigurationWithSync.*

- Vivo asks if there are no spec changes. Apple thinks that this is a generic principle that we already agreed in Rel-15.

*Value range for thresholds*

[R2-2313172](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313172.zip) Remaining issues for flight path reporting Xiaomi discussion Rel-18 NR\_UAV-Core

*Proposal 1: RAN2 can confirm the value zero can be configured for flightPathUpdateDistanceThr and flightPathUpdateTimeThr, and if there is any location/time change in waypoints, the UE should to indicate the flight path update when the value zero is configured.*

- Samsung agrees with proposal 1 and we have agreed that a single way point can trigger.

* [AT124][006][UAV] offline on UAV (Qualcomm)

Scope:

- Re-word this proposal: multiple event H1/H2 or multiple height-dependent configurations/ measurement events, the UAV should choose the one of them whose distance is the smallest between the altitude of the UAV and the **triggered** height threshold to trigger or the application of the corresponding event or of the MR configuration.

- Discuss/agree whether it is configurable (i.e. the nw can chose whether it was the UE to report everything or chose one)

- on value/range for FlightPathUpdateDistanceThr-r18 and FlightPathUpdateTimeThr-r18

- Deadline: Thursday (update in CB session)

**Open issues: Flightpath update**

*Remaining details on flightpath update triggering*

[R2-2312233](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312233.zip) Remaining issues for flightpath reporting ZTE Corporation, Sanechips discussion Rel-18 NR\_UAV-Core

Proposal 1: Flightpath update indication can be triggered due to adding or removing a single waypoint.

Proposal 1a: Flightpath update indication is not triggered if the flightpath update is just for removing outdated waypoints.

Proposal 2: RAN2 to decide whether flightpath availability indication can be triggered after empty flightpath information has been sent to network.

[R2-2312922](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312922.zip) UAV Flight Path Reporting Ericsson discussion Rel-18

Proposal 1: For RRCReestablishmentComplete, UE does not check for threshold(s) configuration for indicating FP availability i.e., always like a new flight path availability indication.

Proposal 5: NG-RAN can request the UE to obtain the flight path information independent of the (flight path) availability indication. Adopt the related TP for 38.300.

**Agreements**

1. Include FlightPathInfoReport in AS-Context within HandoverPreparationInformation (as already captured in the running CR).
2. UE initiate transmission of UAI again to the target cell if a UAI transmission was initiated during the last 1 second before receiving the reconfigurationWithSync. Rapporteur to check if there are spec changes.
3. RAN2 can confirm the value zero can be configured for flightPathUpdateDistanceThr and flightPathUpdateTimeThr, and if there is any location/time change in waypoints, the UE should to indicate the flight path update when the value zero is configured
4. Flightpath update indication can be triggered due to adding a single waypoint.
5. Flightpath update indication can be triggered due to removal of a single future waypoint, except if it is removing an outdated waypoints

*Configuration of FP update thresholds*

[R2-2312448](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312448.zip) Remaining consideration on flight path reporting for NR UAV DENSO CORPORATION discussion NR\_UAV-Core

Proposal 1: The mechanism of ReportConfig for measurement report could be used to configure the triggering condition by the network

[R2-2313248](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313248.zip) Remaining issues on flight path reporting Samsung discussion Rel-18 NR\_UAV-Core

Proposal 4: If RAN2 agrees to indicate FP update only by the indication in UAI, the delta distance/time threshold (i.e., UAV-Config-r18 IE) can be configured within OtherConfig IE in RRCReconfiguration.

*Evaluation of thresholds*

[R2-2313347](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313347.zip) Further discussion on flight path reporting for NR UAV China Telecom discussion

Proposal 2: It is necessary to specify an evaluation period in RRC specification to avoid the flight path information outdated.

**Transfer of FP from source to target gNB**

[R2-2313172](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313172.zip) Remaining issues for flight path reporting Xiaomi discussion Rel-18 NR\_UAV-Core

Proposal 3: RAN2 can clarify if the newest flight path information has been sent to the source gNB, the UE doesn’t provide the flight path availability notification through the RRCReconfigurationComplete message during the handover.

Proposal 4: RAN2 can clarify if the flight path information in the source gNB has been updated, the UE indicate the flight path availability through the RRCReconfigurationComplete message to the target gNB during the handover.

Not Treated

[R2-2312198](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312198.zip) Remaining Issues on Flight Path Reporting NEC discussion Rel-18 NR\_UAV-Core

[R2-2312823](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312823.zip) Further discussion on flight path reporting Huawei, HiSilicon discussion Rel-18 NR\_UAV-Core [R2-2310933](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310933.zip)

[R2-2313160](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313160.zip) Flight Path reporting LG Electronics discussion Rel-18 NR\_UAV-Core

[R2-2313406](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313406.zip) Remaining issue on flight path reporting vivo discussion NR\_UAV-Core

### 7.8.4 Subscription-based aerial-UE identification

This AI will not be treated and no contributions are expected, as no further NR enhancements will be pursued.

### 7.8.5 UAV identification broadcast

Contributions should focs on stage-3 detailes related to UAV identification broadcast using PC5-U.

**LS**

[R2-2311761](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311761.zip) LS on New PQI values for A2X communication over PC5 reference point (S2-2311556; contact: LGE) SA2 LS in Rel-18 UAS\_Ph2 To:RAN2

**Resource pool selection**

[R2-2312923](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312923.zip) UAV Broadcast Identification Ericsson discussion Rel-18

Proposal 1 RAN2 to select one of the two solutions as listed above to enable the UE sending BRID/DAA to choose the appropriate resource pool:

Solution 1: MAC layer knows the logical channel carrying data for BRID or DAA without having an explicit indicator (i.e., by UE implementation).

Solution 2: Specify an indicator in the SL-LogicalChannelConfig such that the logical channel is associated either BRID/DAA data.

[R2-2312834](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312834.zip) Further discussion on UAV remote identification broadcast Huawei, HiSilicon discussion Rel-18 NR\_UAV-Core

Proposal 1: RAN to confirm that the UAV uses the dedicated resource pool for A2X service if the A2X dedicated resource pool is configured. Otherwise, the UAV can use the “normal” resource pool for A2X service.

[R2-2312694](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312694.zip) SL resource pool handling for BRID and DAA Samsung discussion Rel-18 NR\_UAV-Core

Proposal 1. UE behaviour to select a resource pool from separately configured A2X communication resource pool i.e., sl-BWP-PoolConfigA2X or sl-BWP-PoolConfigCommonA2X can be specified in clause 5.22.1.1 of TS 38.321.

Proposal 2. UE procedure upon reception of SIB12 in clause 5.2.2.4.13 of TS 38.331 can be updated to support the use of separate resource pool and shared resource pool for A2X communication.

**PQI values**

[R2-2313058](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313058.zip) On A2X-related LS from SA2 and its Implications Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_UAV-Core

Proposal 1: Stage-2 CR on Rel-18 comprises just a pointer to TS 23.256 where the applicable PQI values are stored and explained.

Proposal 2: RAN2 does not respond to SA2 LS sent in S2-2311556.

[R2-2312834](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312834.zip) Further discussion on UAV remote identification broadcast Huawei, HiSilicon discussion Rel-18 NR\_UAV-Core

Proposal 4: An indication should be included in SUI message to indicate the service type of the BRID or DAA.

**Resource pool configuration (if time allows)**

[R2-2312653](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312653.zip) Discussion on UAV identification broadcast CMCC discussion Rel-18 NR\_UAV-Core

Proposal 1: Height and/or flight path information could be used to configure the separate SL resource pool for BRID and DAA.

Not Treated

[R2-2312457](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312457.zip) Discussion on broadcasting remote id for UAV Lenovo discussion Rel-18

[R2-2313091](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313091.zip) Remaining aspects of PC5-based BRID and DAA support Qualcomm Incorporated discussion Rel-18 NR\_UAV-Core, LTE\_UAV\_enh-Core Revised

=> Revised in [R2-2313360](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313360.zip)

[R2-2313355](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313355.zip) Support of PQI Values for DAA/BRID Beijing Xiaomi Mobile Software discussion Rel-18 NR\_UAV-Core

## 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: 1.5 TU

Tdoc Limitation: 4 tdocs

### 7.9.1 Organizational

Including incoming LSs and rapporteur inputs.

Including, for each affected spec:

* Updated running CR
* List of open issues to be addressed by company contributions
* (where applicable) CR rapporteur input with proposals for stage-3 issues (e.g., signalling details, parameter values/ranges) where company contributrions should be avoided

Including outcome of [Post123bis][420][Relay] Rel-18 relay MAC identified open issues (Apple)

[R2-2311722](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311722.zip) LS on handling of location information in multi-path operation (R3-235761; contact: LGE) RAN3 LS in Rel-18 NR\_SL\_relay\_enh-Core, 5G\_ProSe\_Ph2 To:SA2 Cc:RAN2

[R2-2311724](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311724.zip) Reply LS to RAN2 on mode 1 scheduling in inter-DU multi-path (R3-235770; contact: NEC) RAN3 LS in Rel-18 NR\_SL\_relay\_enh-Core To:RAN2

[R2-2311857](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311857.zip) Introduction of NR sidelink U2U relay vivo draftCR Rel-18 38.331 17.6.0 NR\_SL\_relay\_enh-Core Revised

[R2-2311858](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311858.zip) RRC Open issues for U2U relay vivo other Rel-18 NR\_SL\_relay\_enh-Core

[R2-2311880](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311880.zip) SRAP open issues for R18 sidelink relay OPPO other Rel-18 NR\_SL\_relay\_enh-Core

[R2-2311881](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311881.zip) Introduction of NR SL Relay enhancement OPPO CR Rel-18 38.351 17.6.0 0027 - B NR\_SL\_relay\_enh-Core

[R2-2311934](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311934.zip) Introduction of NR sidelink U2U relay vivo CR Rel-18 38.331 17.6.0 4400 - B NR\_SL\_relay\_enh-Core

[R2-2311970](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311970.zip) Introduction of Rel-18 Multi-path Huawei, HiSilicon CR Rel-18 38.331 17.6.0 4403 - B NR\_SL\_relay\_enh-Core

[R2-2311971](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311971.zip) RRC open issues for Rel-18 Multi-path (Outcomes of [Post123bis][417][Relay]) Huawei, HiSilicon report Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312017](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312017.zip) Draft running CR 38.300 LG Electronics Inc. draftCR Rel-18 38.300 17.6.0 B NR\_SL\_relay\_enh-Core

=> Withdrawn

[R2-2312018](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312018.zip) Stage 2 Open Issues LG Electronics Inc. other Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312029](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312029.zip) Draft running CR 38.300 (update) LG Electronics Inc. draftCR Rel-18 38.300 17.6.0 B NR\_SL\_relay\_enh-Core

[R2-2312180](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312180.zip) Summary of [Post123bis][415][Relay] Rel-18 relay PDCP Identified open issues (InterDigital) InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312181](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312181.zip) PDCP Open Issues for Rel-18 Relay InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312182](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312182.zip) Introduction of Enhanced NR Sidelink Relay InterDigital CR Rel-18 38.323 17.5.0 0127 - B NR\_SL\_relay\_enh-Core

[R2-2312219](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312219.zip) (TP for TS 38.300) on mode 1 RA for inter-DU U2N remote UE NEC other Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312336](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312336.zip) Summary of [Post123bis][420][Relay] Rel-18 relay MAC identified open issues (Apple) Apple discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312337](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312337.zip) Introduction of NR sidelink relay enhancements Apple (Rapporteur) CR Rel-18 38.321 17.6.0 1703 - B NR\_SL\_relay\_enh-Core

[R2-2312499](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312499.zip) Introduction of Rel-18 SL relay service continuity MediaTek Inc. CR Rel-18 38.331 17.6.0 4432 - B NR\_SL\_relay\_enh-Core

[R2-2312507](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312507.zip) Remaining open issues for service continuity MediaTek Inc. report Rel-18

[R2-2312625](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312625.zip) Introduction of enhanced NR sidelink relay Xiaomi CR Rel-18 38.322 17.3.0 0054 - B NR\_SL\_relay\_enh-Core

[R2-2312689](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312689.zip) Introduction of Rel-18 SL relay enhancement Huawei, HiSilicon CR Rel-18 38.331 17.6.0 4441 - B NR\_SL\_relay\_enh-Core Late

[R2-2312695](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312695.zip) UE capability for sidelink relay enhancement Samsung discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312929](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312929.zip) Introduction of Rel-18 SL Relay Enhancements Ericsson CR Rel-18 38.304 17.6.0 0365 - B NR\_SL\_relay\_enh-Core

[R2-2313527](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313527.zip) Introduction of SL relay enhancement Samsung CR Rel-18 38.306 17.6.0 1011 - B NR\_SL\_relay\_enh-Core

[R2-2313528](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313528.zip) Introduction of SL relay enhancement Samsung CR Rel-18 38.331 17.6.0 4500 - B NR\_SL\_relay\_enh-Core

### 7.9.2 UE-to-UE relay

Single-hop Layer-2 and Layer-3 UE-to-UE relay for unicast. Including common L2/L3 functionality comprising relay discovery and (re)selection and L2-specific functionality including adaptation layer design, control plane procedures, and QoS handling if needed.

[R2-2311877](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311877.zip) Discussion on control plane procedure of U2U relay OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2311878](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311878.zip) Discussion on user plane procedure of U2U relay OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2311990](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311990.zip) Remaining issues for L2 U2U relay China Telecom discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312007](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312007.zip) Discussion on U2U relay Fujitsu discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312094](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312094.zip) Remaining issues on L2 U2U relay vivo discussion

[R2-2312095](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312095.zip) U2U relay proposals for stage-3 issues vivo discussion

[R2-2312173](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312173.zip) Open Issues on UE-to-UE Relays InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312220](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312220.zip) Discussion on L2 ID reporting of U2U relay NEC discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312222](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312222.zip) U2U relaying considering multi-hop Sharp discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312338](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312338.zip) Discussion on remaining issues on UE-to-UE Relay Apple discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312416](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312416.zip) Discussion on U2U Relay CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312426](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312426.zip) Discussion on the gNB involvement in U2U relay ZTE, Sanechips discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312427](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312427.zip) Discussion on remaining issues on U2U relay ZTE, Sanechips discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312434](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312434.zip) Discussion on remaining issues for U2U relay Xiaomi discussion

[R2-2312452](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312452.zip) Discussion on L2 UE-to-UE relay Lenovo discussion Rel-18

[R2-2312496](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312496.zip) Remaining issues for U2U relay Sharp discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312535](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312535.zip) Our views about open issues for U2U relay LG Electronics Inc. discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312567](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312567.zip) Remaining issues on UE-to-UE relay Spreadtrum Communications discussion Rel-18

[R2-2312615](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312615.zip) U2U relay (re)selection issues Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312616](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312616.zip) E2E RB configuration and QoS split for U2U Relays Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312687](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312687.zip) U2U relay CR update for stage-3 issues vivo draftCR Rel-18 38.331 17.6.0 B NR\_SL\_relay\_enh-Core [R2-2311857](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311857.zip)

[R2-2312692](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312692.zip) Discussion on UE-to-UE relay Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312696](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312696.zip) Control plane issues for L2 U2U relaying Samsung discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312697](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312697.zip) Discussion on remaining issues of U2U relay CMCC discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312842](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312842.zip) UE-to-UE relay (re)selection Sony discussion Rel-18 NR\_SL\_relay\_enh

[R2-2312868](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312868.zip) Open issues on U2U Relay Qualcomm Incorporated discussion NR\_SL\_relay\_enh-Core

[R2-2312882](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312882.zip) Considerations for U2U L2 relay operations Kyocera discussion

[R2-2312924](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312924.zip) Discussion on Relay (re)selection and Discovery Ericsson discussion Rel-18

[R2-2312925](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312925.zip) Control Plane Procedures for Layer 2 UE-to-UE Relays Ericsson discussion Rel-18

[R2-2313192](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313192.zip) Remaining issues on AS layer configuration for L2 U2U Relay ASUSTeK discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2313193](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313193.zip) Remaining issue on PC5 radio link failure ASUSTeK discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2313232](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313232.zip) Discussion on U2U relay (re)selection triggers and thresholds Beijing Xiaomi Mobile Software discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2313509](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313509.zip) SRAP design for U2U Sidelink Relay: remaining issues Samsung R&D Institute UK discussion

[R2-2313542](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313542.zip) Discussion on (re-)selection criteria for U2U relaying Fraunhofer IIS, Fraunhofer HHI discussion Rel-18 NR\_SL\_relay\_enh, NR\_SL\_relay\_enh-Core

### 7.9.3 Service continuity enhancements for L2 UE-to-network relay

Inter-gNB direct/indirect path switching; intra-gNB indirect/indirect path switching; and inter-gNB indirect/indirect path switching, to be supported by reuse of solutions for the other scenarios.

[R2-2311872](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311872.zip) Discussion on service continuity Xiaomi discussion

[R2-2312417](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312417.zip) Further Consideration on Service Continuity Enhancements CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312428](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312428.zip) Remaining issues on service continuity for SL relay ZTE, Sanechips discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312497](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312497.zip) Remaining issues for i2i path switching Sharp discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312617](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312617.zip) SL Relay service continuity consideration Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312843](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312843.zip) Service continuity enhancements for UE sidelink relay Sony discussion Rel-18 NR\_SL\_relay\_enh

[R2-2312926](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312926.zip) Discussion on Inter-gNB Service Continuity Ericsson discussion Rel-18

[R2-2313033](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313033.zip) Discussion on additional aspects for service continuity Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

### 7.9.4 Multi-path relaying

Mechanisms to support multi-path scenarios where a UE is connected to the same gNB using one direct path and one indirect path via 1) Layer-2 UE-to-Network relay, or 2) via another UE (where the UE-UE inter-connection is assumed to be ideal).

[R2-2311873](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311873.zip) Discussion on multi-path Xiaomi discussion

[R2-2311879](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311879.zip) Discussion on control plane procedure of multi-path relay OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2311953](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311953.zip) Discussion on CP Issues of Multi-path relay NEC discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2311954](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311954.zip) Discussion on UP Issues of Multi-path relay NEC discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2311991](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311991.zip) Discussion on control plane remaining issues of multi-path relaying China Telecom discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2311992](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311992.zip) Discussion on user plane remaining issues of multi-path relaying China Telecom discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312008](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312008.zip) Discussions on multi-path Fujitsu discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312096](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312096.zip) Remaining issues on Multi-path relay vivo discussion

[R2-2312174](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312174.zip) Remaining RRC Issues for Multipath InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312175](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312175.zip) Open Issues on PDCP for Multipath InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312176](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312176.zip) Specifying the Direct Path Release in Multipath InterDigital, Apple, Ericsson, Xiaomi discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312339](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312339.zip) Discussion on remaining issues for Multi-path Relay Apple discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312418](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312418.zip) Open Issues Specific for MP Scenario 1 or Scenario 2 CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312419](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312419.zip) Open Issues Common for MP Scenario 1 and Scenario 2 CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312429](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312429.zip) Remaining issues on the support of multi-path relaying ZTE, Sanechips discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312453](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312453.zip) Failure handling in indirect path addition and change Lenovo discussion Rel-18

[R2-2312454](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312454.zip) Open Issue#2-1 related to direct path addition/change/release Lenovo discussion Rel-18

[R2-2312498](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312498.zip) Remaining issues for multi-path relay Sharp discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312540](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312540.zip) Remaining points in Multipath relaying Lenovo discussion NR\_SL\_relay\_enh-Core

[R2-2312568](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312568.zip) Remaining issues on multi-path relaying Spreadtrum Communications discussion Rel-18

[R2-2312690](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312690.zip) CP remaining issues on multi-path operation Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312691](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312691.zip) UP remaining issues on multi-path operation Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312698](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312698.zip) Remaining issues on multi-path CMCC discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312699](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312699.zip) Discussion on indirect path addition procedure for MP CMCC discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312734](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312734.zip) Discussion on remaining CP issues on multiple path for sidelink relay Samsung discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312735](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312735.zip) Discussion on remaining UP issues on multiple path for sidelink relay Samsung discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312844](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312844.zip) Multi-path relaying discussion Sony discussion Rel-18 NR\_SL\_relay\_enh

[R2-2312869](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312869.zip) Open issues on multi-path relay Qualcomm Incorporated discussion NR\_SL\_relay\_enh-Core

[R2-2312870](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312870.zip) Issue#2-4-Discussion on trigger MP Relay UE entering CONNECTED state Qualcomm Incorporated, Huawei, HiSilicon, CATT, CMCC discussion NR\_SL\_relay\_enh-Core

[R2-2312883](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312883.zip) Considerations for multipath relay operations for Scenario 1 Kyocera discussion

[R2-2312927](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312927.zip) Discussion on Multipath Relays Ericsson discussion Rel-18

[R2-2313126](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313126.zip) Remaining issues for MP relay Nokia, Nokia Shanghai Bell discussion NR\_redcap\_enh-Core

[R2-2313213](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313213.zip) Discussion on the release version indication of MP Relay UE OPPO, Interdigital, NEC, vivo, ZTE, Ericsson discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2313309](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313309.zip) Discussion on remaining issues for multi-path relaying LG Electronics Inc. discussion Rel-18 NR\_SL\_relay\_enh-Core

### 7.9.5 DRX

Study the gains and, if needed, specify signalling between gNB and relay UE in sidelink mode 2 to assist the determination of the sidelink DRX configuration used for remote UE. This agenda item will be handled at lower priority.

## 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.

### 7.10.1 In Principle Agreed CRs

In Principle Agreed CRs: 38.300 [Huawei], 38.331 [Xiaomi], 37.340 [ZTE], and capability CRs [Intel] should be updated based on the latest specifications.

[R2-2312026](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312026.zip) Introduction of Rel-18 IDC UE capabilities Intel Corporation CR Rel-18 38.306 17.6.0 0915 1 B NR\_IDC\_enh-Core [R2-2305446](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2305446.zip)

[R2-2312027](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312027.zip) Introcution of Rel-18 IDC UE capabilities Intel Corporation CR Rel-18 38.331 17.6.0 4106 1 B NR\_IDC\_enh-Core [R2-2305447](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2305447.zip)

[R2-2313040](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313040.zip) Introduction of In-Device Co-existence (IDC) enhancements for NR Huawei, HiSilicon CR Rel-18 38.300 17.6.0 0680 5 B NR\_IDC\_enh-Core [R2-2311412](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311412.zip)

[R2-2313331](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313331.zip) 37.340 running CR for introduction of IDC ZTE Corporation, Sanechips CR Rel-18 37.340 17.6.0 0374 - B NR\_IDC\_enh-Core

=> Withdrawn

[R2-2313389](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313389.zip) Introduction of In-Device Co-existence (IDC) enhancements for NR Xiaomi draftCR Rel-18 38.331 17.6.0 B NR\_IDC\_enh-Core

[R2-2313559](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313559.zip) Introduction of In-Device Co-existence (IDC) Enhancements for NR ZTE Corporation, Sanechips CR Rel-18 37.340 17.6.0 0367 2 B NR\_IDC\_enh-Core

### 7.10.2 Others

[R2-2312128](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312128.zip) Further corrections to RRC CR on IDC enhancements Lenovo discussion Rel-18 NR\_IDC\_enh-Core

[R2-2313032](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313032.zip) Corrections for 38.331 Running CR for IDC Enhancements Huawei, HiSilicon discussion Rel-18 NR\_IDC\_enh-Core

[R2-2313335](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313335.zip) Correction on the IDC Reporting ZTE Corporation, Sanechips discussion Rel-18 NR\_IDC\_enh-Core

## 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: 0.5 TU

Tdoc Limitation: 3 tdocs

**NOTE: Focus will be on the critical open issues from the open issue list(s).**

**NOTE: Apsects covered directly in CR update/open issues e-mail discussions should not be discussed in companies contributions.**

### 7.11.1 Organizational

LS in, rapporteur input, running CRs, open issues list etc.

Including outcome of [Post123bis][610][eMBS] 38.300 CR update and open issues (CMCC)

Including outcome of [Post123bis][611][eMBS] 38.331 CR update and open issues (Huawei)

Including outcome of [Post123bis][612][eMBS] 38.321 CR update and open issues (Apple)

Including outcome of [Post123bis][613][eMBS] 38.323 CR update and open issues (Xiaomi)

Including outcome of [Post123bis][614][eMBS] UE capabilities CRs update and open issues (vivo)

Including outcome of [Post123bis][615][eMBS] 38.304 CR (CATT)

[R2-2311715](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311715.zip) Reply LS on multicast reception in RRC\_INACTIVE (R1-2310598; contact: Apple) RAN1 LS in Rel-18 NR\_MBS\_enh-Core To:RAN2

[R2-2311852](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311852.zip) Introduction of eMBS CATT CR Rel-18 38.304 17.6.0 0355 - B NR\_MBS\_enh-Core

[R2-2312272](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312272.zip) Introduction of eMBS UE Capabilities vivo CR Rel-18 38.306 17.6.0 0980 - B NR\_MBS\_enh-Core

[R2-2312273](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312273.zip) Introduction of UE Capability Reporting for eMBS vivo CR Rel-18 38.331 17.6.0 4419 - B NR\_MBS\_enh-Core

[R2-2312275](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312275.zip) Summary of [Post123bis][614] Open Issues for eMBS UE Capabilities vivo discussion Rel-18 NR\_MBS\_enh-Core

[R2-2312294](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312294.zip) Introduction of NR MBS enhancement Apple CR Rel-18 38.321 17.6.0 1701 - B NR\_MBS\_enh-Core

[R2-2312295](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312295.zip) Summary of MAC open issue discussion for eMBS Apple discussion Rel-18 NR\_MBS\_enh-Core

[R2-2312296](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312296.zip) Introduction of NR MBS enhancement (to address open issues) Apple CR Rel-18 38.321 17.6.0 1702 - B NR\_MBS\_enh-Core

[R2-2312524](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312524.zip) PDCP Running CR for eMBS Xiaomi draftCR Rel-18 38.323 17.5.0 B NR\_MBS\_enh-Core Withdrawn

[R2-2312683](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312683.zip) Introduction of eMBS in TS 38.300 CMCC CR Rel-18 38.300 17.6.0 0732 - B NR\_MBS\_enh-Core

[R2-2312684](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312684.zip) 38.300 running CR open issues for eMBS CMCC discussion Rel-18 NR\_MBS\_enh-Core

[R2-2313218](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313218.zip) Introduction of eMBS in TS 38.323 Xiaomi CR Rel-18 38.323 17.5.0 0130 - B NR\_MBS\_enh-Core

[R2-2313243](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313243.zip) Shared processing description in 38.300 Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_MBS\_enh-Core

[R2-2313244](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313244.zip) Introduction of eMBS to RRC Huawei, HiSilicon CR Rel-18 38.331 17.6.0 4482 - B NR\_MBS\_enh-Core Withdrawn

[R2-2313372](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313372.zip) Introduction of eMBS to RRC Huawei, HiSilicon CR Rel-18 38.331 17.6.0 4490 - B NR\_MBS\_enh-Core Revised

[R2-2313373](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313373.zip) MBS open issue list for RRC Huawei, HiSilicon discussion Rel-18 NR\_MBS\_enh-Core

[R2-2313548](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313548.zip) Introduction of eMBS to RRC Huawei, HiSilicon CR Rel-18 38.331 17.6.0 4490 1 B NR\_MBS\_enh-Core [R2-2313372](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313372.zip)

### 7.11.2 Multicast reception in RRC\_INACTIVE

Papers should not be submitted to 7.11.2, please use 7.11.2.1 or 7.11.2.2 instead.

#### 7.11.2.1 Control plane

Remaining stage-3 details for CP aspects of Multicast reception in RRC\_INACTIVE (e.g. is anything needed to ensure MRB continuation, co-existence between multicast reception in INACTIVE and SDT).

[R2-2311806](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311806.zip) Leftover CP issues on Multicast reception in RRC\_INACTIVE ZTE, Sanechips, CBN discussion Rel-18 NR\_MBS\_enh-Core

[R2-2311808](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311808.zip) MRB continuation for Multicast reception in RRC\_INACTIVE ZTE, Sanechips discussion Rel-18 NR\_MBS\_enh-Core

[R2-2311812](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311812.zip) Discussion on Remaining Issues for eMBS CP vivo discussion Rel-18 NR\_MBS\_enh-Core

[R2-2311853](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311853.zip) Remaining CP Issues for Multicast reception in RRC\_INACTIVE CATT, CBN discussion Rel-18 NR\_MBS\_enh-Core

[R2-2311886](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311886.zip) Remaining CP issues for multicast reception in RRC INACTIVE MediaTek inc. discussion Rel-18 NR\_MBS\_enh-Core

[R2-2311999](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311999.zip) Discussion on 38.306 running CR for R18 MBS MediaTek Inc. discussion Rel-18 NR\_MBS\_enh-Core

[R2-2312070](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312070.zip) Discussion on control plane for eMBS NEC discussion NR\_MBS\_enh-Core

[R2-2312297](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312297.zip) CP issues for multicast reception in RRC INACTIVE Apple discussion Rel-18 NR\_MBS\_enh-Core

[R2-2312476](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312476.zip) Control plane aspects of multicast reception in RRC\_INACTIVE Lenovo discussion Rel-18

[R2-2312506](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312506.zip) Consideration on the control plane issue for multicast reception in RRC\_INACTIVE Xiaomi discussion Rel-18

[R2-2312545](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312545.zip) Discussion on co-existence between multicast reception in INACTIVE and SDT ITRI discussion NR\_MBS\_enh-Core [R2-2310574](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310574.zip)

[R2-2312551](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312551.zip) Open issues on control plane for multicast reception in RRC\_INACTIVE state TD Tech, Chengdu TD Tech discussion Rel-18

[R2-2312569](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312569.zip) Discussion on CP remaining issues for Multicast Spreadtrum Communications discussion Rel-18

[R2-2312685](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312685.zip) Discussion on CP open issues CMCC discussion Rel-18 NR\_MBS\_enh-Core

[R2-2312718](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312718.zip) CP Aspects for Multicast Reception in RRC\_INACTIVE Samsung R&D Institute India discussion Rel-18

[R2-2312853](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312853.zip) CP open issues for multicast reception in INACTIVE Kyocera discussion Rel-18 [R2-2311066](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311066.zip)

[R2-2312962](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312962.zip) Open issues for multicast reception in RRC\_INACTIVE Ericsson discussion Rel-18 NR\_MBS\_enh-Core

[R2-2312964](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312964.zip) MBS multicast and UE power saving Ericsson discussion Rel-18 NR\_MBS\_enh-Core

[R2-2313035](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313035.zip) No special handling for “Special UE” and other open issues Qualcomm Incorporated discussion Rel-18 NR\_MBS\_enh-Core

[R2-2313102](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313102.zip) Remaining issues on multicast reception in RRC\_INACTIVE LG Electronics Inc. discussion Rel-18 NR\_MBS\_enh-Core

[R2-2313277](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313277.zip) CP issues for eMBS Shanghai Jiao Tong University discussion

[R2-2313362](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313362.zip) MBS multicast reception when eDRX or MICO mode are configured Ericsson CR Rel-18 38.304 17.6.0 0367 - F NR\_MBS\_enh-Core

[R2-2313374](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313374.zip) Remaining CP issues for multicast reception in RRC\_INACTIVE Huawei, HiSilicon discussion Rel-18 NR\_MBS\_enh-Core

[R2-2313415](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313415.zip) Coexistence of SDT and Multicast reception in RRC\_INACTIVE Sharp discussion

[R2-2313416](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313416.zip) MRB handling during RRC resume procedure Sharp discussion

[R2-2313496](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313496.zip) Control plane details for multicast reception in RRC\_INACTIVE state Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_MBS\_enh-Core

#### 7.11.2.2 User plane

Remaining stage-3 details for UP aspects of Multicast reception in RRC\_INACTIVE (e.g. MAC operation, CFR configuration).

[R2-2311807](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311807.zip) MAC Reset for Multicast reception in RRC\_INACTIVE upon RRCRelease ZTE, Sanechips discussion Rel-18 NR\_MBS\_enh-Core

[R2-2311813](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311813.zip) Discussion on Multicast DRX Timer vivo discussion Rel-18 NR\_MBS\_enh-Core

[R2-2311814](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311814.zip) Further Discussion on PDCP COUNT vivo discussion Rel-18 NR\_MBS\_enh-Core

[R2-2311854](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311854.zip) Remaining UP Issues for Multicast reception in RRC\_INACTIVE CATT, CBN discussion Rel-18 NR\_MBS\_enh-Core

[R2-2311887](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311887.zip) CFR discussion for multicast and broadcast services MediaTek inc. discussion Rel-18 NR\_MBS\_enh-Core

[R2-2312071](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312071.zip) Discussion on user plane for eMBS NEC discussion NR\_MBS\_enh-Core

[R2-2312477](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312477.zip) User plane aspects of multicast reception in RRC\_INACTIVE Lenovo discussion Rel-18

[R2-2312488](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312488.zip) Discussion on the remaining UP issues for the multicast reception in RRC\_INACTIVE Xiaomi discussion Rel-18

[R2-2312553](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312553.zip) Open issues on user plane for multicast reception in RRC\_INACTIVE state TD Tech, Chengdu TD Tech discussion Rel-18

[R2-2312570](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312570.zip) User plane aspects of multicast reception in RRC\_INACTIVE state Nokia Corporation discussion Rel-18 NR\_MBS\_enh-Core

[R2-2312686](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312686.zip) Discussion on UP open issues CMCC discussion Rel-18 NR\_MBS\_enh-Core

[R2-2312963](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312963.zip) PTM DRX for MBS multicast Ericsson discussion Rel-18 NR\_MBS\_enh-Core Withdrawn

[R2-2313024](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313024.zip) Views on the FFS on the multicast CFR configuration aspects Qualcomm Incorporated discussion Rel-18 NR\_MBS\_enh-Core [R2-2310476](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310476.zip)

[R2-2313156](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313156.zip) Remaining user plane issues for eMBS LG Electronics Inc. discussion Rel-18 NR\_MBS\_enh-Core

[R2-2313326](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313326.zip) UP Aspects for Multicast Reception in RRC\_INACTIVE Samsung discussion Rel-18 NR\_MBS\_enh-Core

[R2-2313375](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313375.zip) Remaining UP issues for multicast reception in RRC\_INACTIVE Huawei, HiSilicon discussion Rel-18 NR\_MBS\_enh-Core

### 7.11.3 Shared processing for MBS broadcast and Unicast reception

Remaining stage-3 details for shared processing, if any.

Remaining aspects of UE capabilities (for both multicast reception in Inactive and shared processing).

[R2-2311855](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311855.zip) Remaining Issues on UE Capabilities CATT, CBN discussion Rel-18 NR\_MBS\_enh-Core

[R2-2312073](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312073.zip) Discussion on shared process NEC discussion NR\_MBS\_enh-Core

[R2-2312719](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312719.zip) Remaining Issues for Shared Processing Samsung R&D Institute India discussion Rel-18

[R2-2313287](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313287.zip) Impact of multicast reception in RRC\_INACTIVE state on sharing processing TD Tech, Chengdu TD Tech discussion Rel-18 Late

[R2-2313288](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313288.zip) Impact of multicast reception in RRC\_INACTIVE state on sharing processing TD Tech, Chengdu TD Tech discussion Rel-18

[R2-2313376](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313376.zip) Discussion on shared processing for MBS broadcast and unicast reception Huawei, HiSilicon discussion Rel-18 NR\_MBS\_enh-Core

[R2-2313383](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313383.zip) Clarification on the non-serving cell reception capability of MBS broadcast Xiaomi discussion Rel-18 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-232642)

Time budget: 0.5 TU

Tdoc Limitation: 4 tdocs

### 7.12.1 Organizational Stage-2 and high-level open issues

Ls in Rapporteur input, CRs etc. Connected mode mobility enhancements: On new (not-yet-agreed) proposals, there has previously been some interest for time-based CHO (which can be discussed one more round). Other new (not-yet-agreed) proposals, are not expected to be treated.

Note that on PCI collision, RAN2 agreed that further work on this matter would be based on LS by RAN3. Note that on RACH interference and collisions RAN2 agreed that this better be handled between RAN3 and RAN1.

Includes TS impacts 38300 and Stage-2 Centric Open issues (can also cover secondary impacts to other TSes)

[R2-2311732](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311732.zip) LS on awareness of gNB ID of RRC terminating donor for mobile IAB (R3-235919; contact: Huawei) RAN3 LS in Rel-18 NR\_mobile\_IAB-Core To:RAN2

[R2-2312165](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312165.zip) Updated workplan for Rel-18 mobile IAB Qualcomm Inc. (Rapporteur) Work Plan Rel-18 NR\_mobile\_IAB

[R2-2312166](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312166.zip) CR to TS 38.300 on introduction of mobile IAB Qualcomm Inc. CR Rel-18 38.300 17.6.0 0727 - B NR\_mobile\_IAB

=> Revised in [R2-2313551](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313551.zip)

[R2-2313551](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313551.zip) CR to TS 38.300 on introduction of mobile IAB Qualcomm Inc. CR Rel-18 38.300 17.6.0 0727 1 B NR\_mobile\_IAB

[R2-2312167](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312167.zip) Remaining Stage-2 issues for mIAB Qualcomm Inc. discussion Rel-18 NR\_mobile\_IAB

[R2-2312321](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312321.zip) Remaining issues on CHO in mobile IAB Apple discussion Rel-18 NR\_mobile\_IAB-Core

[R2-2312369](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312369.zip) Confirmation on the gNB-ID-Length broadcasting from RAN3 incoming LS Huawei, HiSilicon discussion Rel-18 NR\_mobile\_IAB-Core

[R2-2312467](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312467.zip) Remaining issues for mobility enhancements of mobile IAB-node Lenovo discussion Rel-18

[R2-2312810](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312810.zip) Mobile IAB node vs IAB node: remaining issues Samsung R&D Institute UK discussion

[R2-2312812](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312812.zip) Draft LS to SA2 on MBSR and IAB Samsung R&D Institute UK LS out To:SA2 Cc:RAN3

[R2-2312855](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312855.zip) Remaining issues on IAB-MT access procedure Kyocera discussion Rel-18 [R2-2311067](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311067.zip)

[R2-2312979](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312979.zip) Introduction of mobile IAB Ericsson CR Rel-18 38.331 17.6.0 4457 - B NR\_mobile\_IAB-Core

[R2-2312980](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312980.zip) Rapporteur resolution proposals for mIAB RRC open issues Ericsson discussion Rel-18 NR\_mobile\_IAB-Core

[R2-2312981](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312981.zip) RRC open issues list for mobile IAB Ericsson discussion Rel-18 NR\_mobile\_IAB-Core

[R2-2313037](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313037.zip) mobile IAB open issues of TS 38.304 Intel Corporation discussion Rel-18 NR\_mobile\_IAB

[R2-2313196](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313196.zip) Introduction of mobile IAB capabilities to TS 38.306 Nokia, Nokia Shanghai Bell CR Rel-18 38.306 17.6.0 1001 - B NR\_mobile\_IAB-Core

[R2-2313197](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313197.zip) Introduction of mobile IAB capabilities to TS 38.331 Nokia, Nokia Shanghai Bell CR Rel-18 38.331 17.6.0 4476 - B NR\_mobile\_IAB-Core

[R2-2313198](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313198.zip) Remaining connected mode issues for mobile IAB Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_mobile\_IAB-Core

[R2-2313284](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313284.zip) Time-based CHO enhancement for Mobile IAB AT&T discussion

### 7.12.2 Stage-3

Note that reuse of NR NTN RACH-less handover is assumed. Modifications of or difference in procedure specifically for mIAB to be determined/elaborated, with mIAB-specifics only when/if there is a need.

For multi-TS input, it is allowed to input also here.

[R2-2312148](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312148.zip) Mobile IAB general aspects and cell barring Intel Corporation discussion Rel-18 NR\_mobile\_IAB

[R2-2312368](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312368.zip) Overview on mobile IAB-node and legacy IAB-node: (m)IAB-support indication, Msg5 and UE capability Huawei, HiSilicon discussion Rel-18 NR\_mobile\_IAB-Core

#### 7.12.2.1 BAP

TS impacts 38340 and BAP Centric Open issues (can also cover secondary impacts to other TSes if applicable)

[R2-2312364](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_124\\Docs\\R2-2312364.zip) Introduction of mobile IAB in TS 38.340 Huawei, HiSilicon CR Rel-18 38.340 17.5.0 0033 - B NR\_mobile\_IAB-Core

[R2-2312365](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312365.zip) Rapporteur proposal for BAP open issue in mobile IAB Huawei, HiSilicon, LG Electronics Inc, Nokia, Nokia Shanghai Bell, Intel Corporation, Lenovo, ZTE Corporation, Sanechips, Fujitsu, Ericsson, NEC, Kyocera, vivo discussion Rel-18 NR\_mobile\_IAB-Core

#### 7.12.2.2 RRC

Except UE caps

TS impacts 38331 and RRC Centric Open issues (can also cover secondary impacts to other TSes if applicable)

[R2-2312422](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312422.zip) Discussion on CHO for mobile IAB ZTE, Sanechips discussion Rel-18 NR\_mobile\_IAB-Core

[R2-2312512](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312512.zip) Remaining issues of mobility enhancements for mobile IAB NEC Corporation discussion Rel-18 NR\_mobile\_IAB-Core

[R2-2312983](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312983.zip) Support of UE on-board indication to the network Ericsson discussion Rel-18 NR\_mobile\_IAB-Core

[R2-2313256](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313256.zip) On general issues about mobile IAB-node CATT discussion Rel-18 NR\_mobile\_IAB

[R2-2313306](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313306.zip) RACH-less HO and Time-based CHO LG Electronics discussion Rel-18 NR\_mobile\_IAB-Core

[R2-2313392](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313392.zip) Clarification on the IDLE or INACTIVE mobility with mIAB Xiaomi discussion Rel-18 NR\_mobile\_IAB-Core

[R2-2313393](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313393.zip) Discussion on supporting the gNB-ID-Length for mIAB-MT Xiaomi discussion Rel-18 NR\_mobile\_IAB-Core

#### 7.12.2.3 MAC

TS impacts 38321 and MAC Centric Open issues (can also cover secondary impacts to other TSes if applicable). NOTE that MAC impact is assumed only for RACH-less handover. Including outcome of [Post123bis][559][mIAB] MAC CR (Samsung)

[R2-2312168](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_124\\Docs\\R2-2312168.zip) Remaining issues for RACH-less handover for mobile IAB Qualcomm Inc. discussion Rel-18 NR\_mobile\_IAB

[R2-2312322](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312322.zip) Remaining issues on RACH-less HO in mobile IAB Apple discussion Rel-18 NR\_mobile\_IAB-Core

[R2-2312367](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312367.zip) Differences between the RACH-less solution for mobile IAB and NTN Huawei, HiSilicon discussion Rel-18 NR\_mobile\_IAB-Core

[R2-2312424](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312424.zip) Discussion on remaining issues of RACH-less HO ZTE, Sanechips discussion Rel-18 NR\_mobile\_IAB-Core

[R2-2312468](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312468.zip) Discussion on RACH-less handover for mobile IAB Lenovo discussion Rel-18

[R2-2312809](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312809.zip) Report from [Post123bis][559][mIAB] MAC CR (Samsung) Samsung R&D Institute UK report

#### 7.12.2.4 Idle Inactive mode

TS impacts to 38304 and Idle/Inactive mode centric open issues (can also cover secondary impacts to other TSes if applicable).

[R2-2312169](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312169.zip) Remaining issues for inter-frequency cell reselection of mIAB Qualcomm Inc. discussion Rel-18 NR\_mobile\_IAB

[R2-2312191](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312191.zip) UE cell (re)selection in mobile IAB Samsung R&D Institute UK discussion

[R2-2312323](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312323.zip) Remaining issues on Cell reselection in mobile IAB Apple discussion Rel-18 NR\_mobile\_IAB-Core

[R2-2312366](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312366.zip) Views on the usage of SIB4 (frequency/cell list) assistance information for cell reselection Huawei, HiSilicon discussion Rel-18 NR\_mobile\_IAB-Core

[R2-2312423](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312423.zip) Discussion on mobility enhancement for UE in idle or inactive mode ZTE, Sanechips discussion Rel-18 NR\_mobile\_IAB-Core

[R2-2312469](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312469.zip) Remaining issues for mobility enhancement of idle and inactive UE Lenovo discussion Rel-18

[R2-2312845](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312845.zip) Further details on mIAB PCI list Sony discussion Rel-18 NR\_mobile\_IAB-Core

[R2-2312854](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312854.zip) Remaining issues on IDLE/INACTIVE mode UE mobility for mobile IAB Kyocera discussion Rel-18

[R2-2312982](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312982.zip) Indication of DU-migration to UEs in IDLE and INACTIVE Ericsson discussion Rel-18 NR\_mobile\_IAB-Core

[R2-2313013](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313013.zip) On support of inter-RAT mIAB cell reselection Samsung, AT&T discussion Rel-18 NR\_mobile\_IAB-Core

[R2-2313036](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313036.zip) UE cell (re)selection and TP to TS38.304 Intel Corporation, Huawei, HiSilicon, Ericsson, AT&T discussion Rel-18 NR\_mobile\_IAB

[R2-2313199](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313199.zip) Cell reselection issues for UEs in mobile IAB scenarios Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_mobile\_IAB-Core

[R2-2313255](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313255.zip) Cell reselection and assistance information on mobile IAB cells CATT, Nokia, Nokia Shanghai Bell, Apple, Canon other Rel-18 NR\_mobile\_IAB

[R2-2313268](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313268.zip) Remaining issues for mobile IAB PCI list SHARP Corporation discussion Rel-18

[R2-2313305](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313305.zip) Resolving open issues for cell reselection LG Electronics discussion Rel-18 NR\_mobile\_IAB-Core

#### 7.12.2.5 UE capabilites

TS impacts to 38306, related impacts on 38331 and UE-caps-centric open issues.

[R2-2312149](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312149.zip) Discussion on mobile IAB-MT UE capability Intel Corporation discussion Rel-18 NR\_mobile\_IAB

[R2-2312324](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312324.zip) Remaining issues on UE capability in mobile IAB Apple discussion Rel-18 NR\_mobile\_IAB-Core

[R2-2312425](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312425.zip) Discussion on UE capability ZTE, Sanechips discussion Rel-18 NR\_mobile\_IAB-Core

[R2-2312984](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312984.zip) Need of UE capability for mIAB UEs Ericsson discussion Rel-18 NR\_mobile\_IAB-Core

[R2-2313200](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313200.zip) Open issues on mobile IAB capabilities Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_mobile\_IAB-Core

[R2-2313257](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313257.zip) On capabilities of mobile IAB-node CATT discussion Rel-18 NR\_mobile\_IAB

[R2-2313285](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313285.zip) Mobile IAB UE Capabilities AT&T discussion

## 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

Time budget: 1 TU

Tdoc Limitation: 6 tdocs

### 7.13.1 Organizational

Ls in Rapporteur input.

[R2-2311725](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311725.zip) LS on SPR (R3-235868; contact: Samsung) RAN3 LS in Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core To:RAN2

[R2-2311729](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311729.zip) LS on MRO for Fast MCG Recovery (R3-235897; contact: Huawei) RAN3 LS in Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core To:RAN2

[R2-2311767](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311767.zip) Reply LS on user consent of Non-public Network (S5-236928; contact: Ericsson) SA5 LS in Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core To:RAN3 Cc:RAN2, SA3

[R2-2312740](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312740.zip) The report of [Post123bis][658][R18 SONMDT] Running UE capabilities CR of SONMDT(CATT) CATT report Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312791](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312791.zip) Running 36.331 CR for SN RACH report ZTE Corporation, Sanechips CR Rel-18 36.331 17.6.0 4969 - B NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312792](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312792.zip) Running 38.331 CR for SON on RACH report ZTE Corporation, Sanechips CR Rel-18 38.331 17.6.0 4444 - B NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312793](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312793.zip) RACH relevant SON open issues ZTE Corporation, Sanechips discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312896](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312896.zip) List of Open Issues of Rel-18 SONMDT MRO Ericsson discussion NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312902](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312902.zip) Running CR 38331 for Rel-18 SON MRO Ericsson CR Rel-18 38.331 17.6.0 4253 2 B NR\_ENDC\_SON\_MDT\_enh2-Core [R2-2310750](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310750.zip)

[R2-2312903](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312903.zip) CR to 38331 for introducing SON/MDT features in Rel-18 Ericsson, Huawei, ZTE CR Rel-18 38.331 17.6.0 4452 - B NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2313129](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313129.zip) CR to 36.331 for Further enhancements on SONMDT Huawei, Ericsson, ZTE CR Rel-18 36.331 17.6.0 4973 - B NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2313130](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313130.zip) CR to 36.306 for UE capability for R18 SONMDT Huawei, HiSilicon, CATT CR Rel-18 36.306 17.4.0 1875 - B NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2313131](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313131.zip) CR to 36.331 for UE capability for R18 SONMDT Huawei, HiSilicon, CATT CR Rel-18 36.331 17.6.0 4974 - B NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2313139](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313139.zip) Running 36.331 CR for logged MDT enhancements Huawei, HiSilicon draftCR Rel-18 36.331 17.6.0 B NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2313140](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313140.zip) Running 38.331 CR for logged MDT enhancements and NPN Huawei, HiSilicon draftCR Rel-18 38.331 17.6.0 B NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2313271](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313271.zip) CR to 38306 for UE capability for R18 SONMDT CATT, Huawei, HiSilicon CR Rel-18 38.306 17.6.0 1007 - B NR\_ENDC\_SON\_MDT\_enh2-Core Revised

[R2-2313272](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313272.zip) CR to 38331 for UE capability for R18 SONMDT CATT, Huawei, HiSilicon CR Rel-18 38.331 17.6.0 4484 - B NR\_ENDC\_SON\_MDT\_enh2-Core Revised

[R2-2313545](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313545.zip) CR to 38306 for UE capability for R18 SONMDT CATT, Huawei, HiSilicon CR Rel-18 38.306 17.6.0 1007 1 B NR\_ENDC\_SON\_MDT\_enh2-Core [R2-2313271](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313271.zip) Late

[R2-2313546](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313546.zip) CR to 38331 for UE capability for R18 SONMDT CATT, Huawei, HiSilicon CR Rel-18 38.331 17.6.0 4484 1 B NR\_ENDC\_SON\_MDT\_enh2-Core [R2-2313272](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313272.zip) Late

### 7.13.2 MRO for inter-system handover for voice fallback

[R2-2312794](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312794.zip) Consideration on MRO for inter-system handover for voice fallback ZTE Corporation, Sanechips discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312897](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312897.zip) Discussion on voice fallback HO failure Ericsson, CMCC discussion NR\_ENDC\_SON\_MDT\_enh2-Core

### 7.13.3 MDT override

### 7.13.4 SHR and SPCR

[R2-2312308](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312308.zip) On SPR availability indication Apple discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312473](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312473.zip) SON enhancements for inter-RAT SHR and SPR Lenovo discussion Rel-18

[R2-2312618](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312618.zip) SPR reporting mechanism Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312741](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312741.zip) Further discussion on SPR CATT discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core Revised

[R2-2312795](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312795.zip) Consideration on SPR remaining issues ZTE Corporation, Sanechips discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312885](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312885.zip) SON/MDT enhancements for Inter-RAT SHR Samsung discussion

[R2-2312898](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312898.zip) Discussion on inter-RAT SHR and SPR Ericsson discussion NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312904](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312904.zip) SON/MDT enhancements for SPR Samsung discussion

[R2-2313070](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313070.zip) Discussion on Open Issues in SPR Qualcomm Incorporated discussion Rel-18

[R2-2313132](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313132.zip) Discussion on leftover issues for SHR and SPR Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2313222](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313222.zip) Discussion on remaining issues for SPR SHARP Corporation discussion

[R2-2313443](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313443.zip) Remaining issues on SPR vivo discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2313544](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313544.zip) Further discussion on SPR CATT discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core [R2-2312741](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312741.zip) Late

### 7.13.5 SON for NR-U

Focus on UE impacts. RAN2/RAN3 progress should be considered.

[R2-2312474](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312474.zip) Discussion on MRO for NR-U Lenovo discussion Rel-18

[R2-2312676](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312676.zip) SONMDT enhancement for NR-U CMCC discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312742](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312742.zip) SON Enhancement for NR-U CATT discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312796](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312796.zip) Remaining issue on NR-U ZTE Corporation, Sanechips discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312905](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312905.zip) SON/MDT enhancements for NR-U Samsung discussion

[R2-2313133](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313133.zip) Discussion on leftover issues for SON for NR-U Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2313514](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313514.zip) Enhancements of SON reports for NR-U Ericsson discussion

### 7.13.6 RACH enhancement

[R2-2312489](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312489.zip) Consideration on the SON enhancements for RACH report Xiaomi discussion Rel-18

[R2-2312619](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312619.zip) Discussion on RACH enhancement for SON Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312743](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312743.zip) RACH enhancement for SON CATT discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312797](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312797.zip) Remaining issue on RACH enhancements ZTE Corporation, Sanechips discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312899](file:///C:\\Users\\panidx\\OneDrive%20-%20InterDigital%20Communications,%20Inc\\Documents\\3GPP%20RAN\\TSGR2_124\\Docs\\R2-2312899.zip) RA report enhancement Ericsson discussion NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312914](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312914.zip) SON/MDT enhancements for RACH Samsung discussion

[R2-2313082](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313082.zip) On SgNB RACH reporting Qualcomm Incorporated discussion Rel-18

[R2-2313134](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313134.zip) Discussion on leftover issues for RACH enhancement Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2313177](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313177.zip) Power information in RA report SHARP Corporation discussion [R2-2310423](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310423.zip)

[R2-2313214](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313214.zip) RA report enhancement for SDT SHARP Corporation discussion [R2-2310428](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310428.zip)

### 7.13.7 SON/MDT enhancements for Non-Public Networks

[R2-2312309](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312309.zip) OOC analysis involving NPN network Apple discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312451](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312451.zip) Discussion on the SONMDT enhancement for NPN Xiaomi discussion Rel-18

[R2-2312620](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312620.zip) Discussion on open NPN issues in SON/MDT Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312744](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312744.zip) SON and MDT Enhancement for NPN CATT discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312798](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312798.zip) Remaining issue on SON-MDT support for NPN ZTE Corporation, Sanechips discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312886](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312886.zip) SON/MDT enhancements for NPN Samsung discussion

[R2-2312900](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312900.zip) SON Support for NPN Ericsson discussion NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2313072](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313072.zip) Discussion on Open Issues in SON/MDT Enhancements for NPN Qualcomm Incorporated discussion

[R2-2313135](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313135.zip) Discussion on leftover issues for SONMDT enhancements for NPN Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2313141](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313141.zip) Open issue list for RRC running CR for NPN Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2313444](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313444.zip) Remaining issues on SON enhancement for NPN vivo discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh-Core

### 7.13.8 Other

[R2-2312475](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312475.zip) SON enhancements for CPAC Lenovo discussion Rel-18

[R2-2312621](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312621.zip) Improvement of handling of timeConnFailure Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312622](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312622.zip) MRO for CPAC Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312623](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312623.zip) MRO for fast MCG recovery Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312659](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312659.zip) Discussion on MRO for fast MCG recovery CMCC discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312660](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312660.zip) [Draft] Reply LS on MRO for Fast MCG Recovery CMCC LS out Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core To:RAN3

[R2-2312677](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312677.zip) SON MDT enhancement for MR-DC CPAC CMCC discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312678](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312678.zip) MHI Enhancement for SCG Activation/Deactivation CMCC, Ericsson, CATT discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312745](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312745.zip) Discussion on Fast MCG recovery MRO Enhancement CATT discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312746](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312746.zip) Discussion on MHI Enhancement for SCG Deactivation/Activation CATT discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312799](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312799.zip) Consideration on other SON remaining issues ZTE Corporation, Sanechips discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2312884](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312884.zip) Fast MCG Link Recovery Optimization Samsung discussion

[R2-2312901](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312901.zip) Discussion on Fast MCG recovery Ericsson discussion NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2313136](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313136.zip) Discussion on leftover issues for fast MCG recovery Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2313137](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313137.zip) Discussion on leftover issues for CPAC MRO Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2313138](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313138.zip) Discussion on MRO for Fast MCG Recovery (RAN3 LS R3-235897) Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

[R2-2313239](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313239.zip) Discussion on fast MCG recovery MRO SHARP Corporation discussion

[R2-2313445](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313445.zip) Remaining issues on MRO for CPAC vivo discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh-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: 0.5 TU

Tdoc Limitation: 3 tdocs

**NOTE: Focus will be on the critical open issues from the open issue list(s).**

**NOTE: Apsects covered directly in CR update/open issues e-mail discussions should not be discussed in companies contributions.**

### 7.14.1 Organizational

Including LSs and any rapporteur inputs (e.g. work plan, running CRs, open issues list)

[R2-2311730](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311730.zip) Reply LS on Priority information and NR-DC (R3-235912; contact: Huawei) RAN3 LS in Rel-18 NR\_QoE\_enh-Core To:RAN2 Cc:SA4, SA5

[R2-2311731](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311731.zip) Reply LS on MBS communication service (R3-235913; contact: Huawei) RAN3 LS in Rel-18 NR\_QoE\_enh-Core To:SA4, SA5, RAN2, SA2

[R2-2311869](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311869.zip) [Post123bis][616][QoE] 38.300 CR update and open issues (China Unicom) China Unicom discussion NR\_QoE\_enh-Core

[R2-2311870](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311870.zip) 38.300 running CR for R18 QoE enhancement in NR China Unicom, Huawei, HiSilicon draftCR Rel-18 38.300 17.6.0 NR\_QoE\_enh-Core

[R2-2312661](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312661.zip) Introduction of QMC in NR-DC and RRC\_IDLE/RRC\_INACTIVE in TS 38.306 CMCC CR Rel-18 38.306 17.6.0 0991 - B NR\_QoE\_enh-Core

[R2-2312662](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312662.zip) Introduction of QMC in NR-DC and RRC\_IDLE/RRC\_INACTIVE in TS 38.331 CMCC CR Rel-18 38.331 17.6.0 4438 - B NR\_QoE\_enh-Core

[R2-2312663](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312663.zip) Open issues list for Rel-18 QoE UE capabilities CMCC discussion Rel-18 NR\_QoE\_enh-Core

[R2-2312664](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312664.zip) Report of [Post123bis][619][QoE] UE capabilities CRs update and open issues (CMCC) CMCC discussion Rel-18 NR\_QoE\_enh-Core

[R2-2312703](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312703.zip) Introduction of QoE for NR-DC Nokia, Nokia Shanghai Bell CR Rel-18 37.340 17.6.0 0372 - B NR\_QoE\_enh-Core

[R2-2312704](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312704.zip) Report of [Post123bis][618][QoE] 37.340 CR update and open issues Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_QoE\_enh-Core

[R2-2312825](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312825.zip) Introduction of Enhancement on NR QoE management and optimizations for diverse services Ericsson CR Rel-18 38.331 17.6.0 4446 - B NR\_QoE\_enh-Core

[R2-2312826](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312826.zip) Report of [Post123bis][617][QoE] 38.331 CR update and open issues (Ericsson) Ericsson discussion Rel-18 NR\_QoE\_enh-Core

[R2-2313280](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313280.zip) Revised Work Plan for Rel-18 NR QoE Enhancement China Unicom discussion NR\_QoE\_enh-Core

### 7.14.2 QoE measurements in RRC\_IDLE INACTIVE

Including remaining details of area scope handling for MBS QoE, QoE configuration storing and retrieval at/from the UE, AS layer signalling details.

Including any new impact stemming from RAN3 agreements.

[R2-2312334](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312334.zip) QoE Measurements Discarding in IDLE/INACTIVE States Apple discussion Rel-18 NR\_QoE\_enh-Core

[R2-2312435](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312435.zip) Discussion on QoE measurement in RRC\_IDLE and RRC\_INACTIVE Samsung discussion Rel-18 NR\_QoE\_enh-Core

[R2-2312665](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312665.zip) Remaining issues on QMC in RRC\_IDLE and RRC\_INACTIVE CMCC discussion Rel-18 NR\_QoE\_enh-Core

[R2-2312705](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312705.zip) Remaining issues on QoE for RRC IDLE and INACTIVE Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_QoE\_enh-Core

[R2-2312747](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312747.zip) Discussion on remaining issues for QoE measurements in RRC IDLE and INACTIVE state CATT discussion Rel-18 NR\_QoE\_enh-Core

[R2-2312800](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312800.zip) Remaining issue on QoE measurement in IDLE and INACTIVE ZTE Corporation, Sanechips discussion Rel-18 NR\_QoE\_enh-Core

[R2-2312827](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312827.zip) QoE measurements in RRC\_INACTIVE and RRC\_IDLE state Ericsson discussion Rel-18 NR\_QoE\_enh-Core

[R2-2312871](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312871.zip) Open Issues on QoE for IDLE and Inactive state Qualcomm Incorporated discussion NR\_QoE\_enh-Core

[R2-2313142](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313142.zip) Discussion on QoE measurements in RRC\_IDLE and INACTIVE Huawei, HiSilicon discussion Rel-18 NR\_QoE\_enh-Core

[R2-2313282](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313282.zip) Discussion on QoE measurements in RRC\_IDLE and INACTIVE states China Unicom discussion NR\_QoE\_enh-Core

### 7.14.3 Support of QoE measurements for NR-DC

Remaining RAN2 aspects of QoE support in NR-DC, including any new impact stemming from RAN3 agreements.

[R2-2312436](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312436.zip) Discussion on QoE measurement for NR-DC Samsung discussion Rel-18 NR\_QoE\_enh-Core

[R2-2312666](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312666.zip) Remaining issues on QMC in NR-DC CMCC discussion Rel-18 NR\_QoE\_enh-Core

[R2-2312706](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312706.zip) Remaining issues on QoE for NR-DC Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_QoE\_enh-Core

[R2-2312748](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312748.zip) Discussion on remaining issues for QoE measurements for NR-DC CATT discussion Rel-18 NR\_QoE\_enh-Core

[R2-2312801](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312801.zip) Remaining issue on QoE measurement for NR-DC ZTE Corporation, Sanechips discussion Rel-18 NR\_QoE\_enh-Core

[R2-2312828](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312828.zip) QoE measurements in NR-DC Ericsson discussion Rel-18 NR\_QoE\_enh-Core

[R2-2313143](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313143.zip) Discussion on QoE measurements in NR-DC Huawei, HiSilicon discussion Rel-18 NR\_QoE\_enh-Core

[R2-2313281](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313281.zip) Discussion on QoE configuration and reporting for NR-DC China Unicom discussion NR\_QoE\_enh-Core

### 7.14.4 UE capabilities and other topics

Including discussion on the remaining RAN2 impacts of continuity of legacy QoE measurement job for streaming and MTSI service during intra-5GC inter-RAT handover process, if any.

Including the discussion on the remaining RAN2 impact of Rel-17 left-over topics, if any.

Including discussion on the remaining UE capability aspects of the QoE WI.

[R2-2312040](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312040.zip) Remaining issues of QoE support for NR-DC and inter-RAT mobility NEC discussion Rel-18 NR\_QoE\_enh-Core

[R2-2312335](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312335.zip) Other Topics of Rel-18 QoE Apple discussion Rel-18 NR\_QoE\_enh-Core

[R2-2312437](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312437.zip) Discussion on QoE continuity during inter-RAT handover Samsung discussion Rel-18 NR\_QoE\_enh-Core

[R2-2312667](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312667.zip) Remaining issues on Rel-18 QoE UE capabilities CMCC discussion Rel-18 NR\_QoE\_enh-Core

[R2-2312707](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312707.zip) Discussion on inter-RAT QoE continuity and UE capabilities Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_QoE\_enh-Core [R2-2310656](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310656.zip)

[R2-2312749](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312749.zip) Discussion on remaining issues for UE capability and Rel-17 leftover issues CATT discussion Rel-18 NR\_QoE\_enh-Core

[R2-2312802](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312802.zip) Remaining issue on Rel-18 other QoE enhancement ZTE Corporation, Sanechips discussion Rel-18 NR\_QoE\_enh-Core

[R2-2312829](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312829.zip) QoE and IRAT handover to LTE Ericsson discussion Rel-18 NR\_QoE\_enh-Core

[R2-2312872](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312872.zip) Inter-RAT QoE mobility Qualcomm Incorporated discussion NR\_QoE\_enh-Core

[R2-2312873](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312873.zip) Open issues on UE QoE capabilities Qualcomm Incorporated discussion NR\_QoE\_enh-Core

[R2-2313144](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313144.zip) Discussion on UE capabilities and others Huawei, HiSilicon discussion Rel-18 NR\_QoE\_enh-Core

[R2-2313283](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313283.zip) Discussion on Rel-18 NR QoE capabilities China Unicom discussion NR\_QoE\_enh-Core

## 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: 1 TU

Tdoc Limitation: 3 tdocs

### 7.15.1 Organizational

Includes Incoming LS, WI rapporteur inputs (including a list of critical functional level open issues for WI completion. Note functions that are good to have but not essential are not considered as critical open issues for WI completion), and stage-2 and stage-3 running CRs from the assigned CR rapporteurs. Detailed RRC/MAC/PDCP/UE Capability stage 3 issue list (with the rapporteur suggestion) by CR rapporteurs may be provided.

[R2-2311705](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311705.zip) Reply LS on SL RB set index and LBT failure indication for PSFCH (R1-2310434; contact: OPPO) RAN1 LS in Rel-18 NR\_SL\_enh2-Core To:RAN2

[R2-2311755](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311755.zip) LS on a capability of UE power class and IE on PEMAX,CA for SL CA (R4-2317751; contact: LGE, OPPO) RAN4 LS in Rel-18 NR\_SL\_enh2-Core To:RAN2 Cc:RAN1

[R2-2311764](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311764.zip) Reply LS on TX Profile for SL CA (S2-2311811; contact: LGE) SA2 LS in Rel-18 NR\_SL\_enh2 To:RAN2 Cc:CT1

[R2-2311787](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311787.zip) Work plan of R18 SL-Evo OPPO, LG Work Plan Rel-18 NR\_SL\_enh2

[R2-2311788](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311788.zip) Per-WI Open Issue list for R18 SL-Evo OPPO, LG Work Plan Rel-18 NR\_SL\_enh2

[R2-2311789](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311789.zip) Stage-3 RRC Open Issue list for R18 SL-Evo OPPO, LG Work Plan Rel-18 NR\_SL\_enh2

[R2-2311790](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311790.zip) Introduction of Release-18 SL Evolution OPPO CR Rel-18 38.331 17.6.0 4391 - B NR\_SL\_enh2

[R2-2311943](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311943.zip) Introduction of Release-18 SL Evolution in TS 38.304 ZTE Corporation, Sanechips CR Rel-18 38.304 17.6.0 0359 - B NR\_SL\_enh2

[R2-2311952](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311952.zip) Introduction of NR sidelink PDCP duplication in TS 38.323 CATT CR Rel-18 38.323 17.5.0 0126 - B NR\_SL\_enh2-Core

[R2-2311955](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311955.zip) Introduction of Release-18 SL Evolution in TS 38.321 LG Electronics France CR Rel-18 38.321 17.6.0 1695 - B NR\_SL\_enh2 Late

[R2-2312183](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312183.zip) Stage 2 Open Issues InterDigital discussion Rel-18 NR\_SL\_enh2

[R2-2312184](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312184.zip) Draft LS on QoS Flow to Carrier Mapping InterDigital LS out Rel-18 NR\_SL\_enh2 To:SA2

[R2-2312185](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312185.zip) Introduction of NR Sidelink Evolution InterDigital CR Rel-18 38.300 17.6.0 0728 - B NR\_SL\_enh2

[R2-2312218](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312218.zip) Discussion on terminology alignment for SL-U and SL CA NEC discussion Rel-18 NR\_SL\_enh2

[R2-2313041](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313041.zip) Discussion on open issues of UE capabilities for Rel-18 SL evolution Huawei, HiSilicon discussion Rel-18 NR\_SL\_enh2

[R2-2313042](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313042.zip) Draft introduction of SL evolution for TS 38.306 Huawei, HiSilicon draftCR Rel-18 38.306 17.6.0 B NR\_SL\_enh2

[R2-2313043](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313043.zip) Draft introduction of SL evolution UE capabilities for TS 38.331 Huawei, HiSilicon draftCR Rel-18 38.331 17.6.0 B NR\_SL\_enh2

[R2-2313044](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313044.zip) Draft Rel-18 RAN2 TP for TR 37.985 Huawei, HiSilicon draftCR Rel-18 37.985 17.1.1 NR\_SL\_enh2

[R2-2313045](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313045.zip) Draft LS on Rel-18 RAN2 TP for TR 37.985 Huawei, HiSilicon LS out Rel-18 NR\_SL\_enh2 To:RAN1

[R2-2313313](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313313.zip) Discussion on PEMAX,CA for NR SL CA LG Electronics Inc. discussion NR\_SL\_enh2

### 7.15.2 Open issues

Includes [POST123bis][113], confirmation of working assumptions, etc., based on essential open issue list provided by WI rapporteur.

[R2-2311791](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_124\\Docs\\R2-2311791.zip) Summary of [POST123bis][113][V2XSL] QoS flows mapping to carriers (OPPO) OPPO discussion Rel-18 NR\_SL\_enh2

[R2-2311792](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311792.zip) Left issues on SL-CA and SL-U OPPO discussion Rel-18 NR\_SL\_enh2

[R2-2311793](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311793.zip) Discussion on R4-2317751 OPPO discussion Rel-18 NR\_SL\_enh2

[R2-2311803](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311803.zip) Discussion on open issues of SL-U vivo discussion

[R2-2311804](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311804.zip) Discussion on open issues of NR sidelink CA vivo discussion

[R2-2311889](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311889.zip) Discussion on open issues for SL CA enhancements Huawei, HiSilicon discussion Rel-18 NR\_SL\_enh2-Core Withdrawn

[R2-2311944](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311944.zip) Discussion on NACK-only for SL-U ZTE Corporation,Ericsson, Xiaomi, Nokia, Nokia Shanghai Bell, vivo, Sanechips discussion Rel-18 NR\_SL\_enh2

[R2-2311998](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311998.zip) Discussion on open issues for SL CA China Telecom discussion Rel-18 NR\_SL\_enh2

[R2-2312032](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312032.zip) Discussion on remaining issues of SL-CA enhancement LG Electronics France discussion NR\_SL\_enh2

[R2-2312037](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312037.zip) Discussion on CSI reporting MAC CE for SL CA Huawei, HiSilicon, NEC, ASUSTek, Qualcomm discussion Rel-18 NR\_SL\_enh2-Core

[R2-2312100](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312100.zip) Remaining open issues Lenovo discussion Rel-18 NR\_SL\_enh2-Core

[R2-2312177](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312177.zip) Open Issues on SL-U InterDigital discussion Rel-18 NR\_SL\_enh2

[R2-2312178](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312178.zip) Open Issues on SL CA InterDigital discussion Rel-18 NR\_SL\_enh2

[R2-2312216](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312216.zip) Discussion on remaining issues of SL-U NEC discussion Rel-18 NR\_SL\_enh2

[R2-2312217](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312217.zip) Discussion on remaining issues of SL CA NEC discussion Rel-18 NR\_SL\_enh2

[R2-2312251](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312251.zip) Remaining issues for SL-U Huawei, HiSilicon discussion Rel-18 NR\_SL\_enh2

[R2-2312325](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312325.zip) Remaining issues on SL-U Apple discussion Rel-18 NR\_SL\_enh2

[R2-2312326](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312326.zip) Remaining issues on SL CA Apple discussion Rel-18 NR\_SL\_enh2

[R2-2312431](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312431.zip) Discussion on remaining issues on SL-U Xiaomi discussion

[R2-2312432](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312432.zip) Discussion on remaining issues on SL CA Xiaomi discussion

[R2-2312514](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312514.zip) Discussion on RAN4 LS R4-2317751 Ericsson discussion Rel-18 NR\_SL\_enh2

[R2-2312515](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312515.zip) Remaining aspects on SL-U Ericsson discussion Rel-18 NR\_SL\_enh2

[R2-2312516](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312516.zip) Aspects of SL CA Ericsson discussion Rel-18 NR\_SL\_enh2

[R2-2312824](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312824.zip) On SL-U open issues Nokia, Nokia Shanghai Bell discussion

[R2-2312928](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312928.zip) Discussion on remaining issues of SL-U Qualcomm India Pvt Ltd discussion

[R2-2312930](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312930.zip) Discussion on remaining issues of SL CA Qualcomm India Pvt Ltd discussion

[R2-2312994](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312994.zip) Discussion on left issues for SL CA enhancements Huawei, HiSilicon discussion Rel-18 NR\_SL\_enh2-Core

[R2-2313025](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313025.zip) 7.15.2  Remaining issues for SL-U Samsung Electronics Co., Ltd discussion Rel-18 NR\_SL\_enh2

[R2-2313026](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313026.zip) 7.15.2  Remaining issues for SL-CA Samsung Electronics Co., Ltd discussion Rel-18 NR\_SL\_enh2

[R2-2313125](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313125.zip) Open issues on SL-CA. Nokia, Nokia Shanghai Bell discussion NR\_SL\_enh2 Withdrawn

[R2-2313178](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313178.zip) Open issues on SL-CA Nokia, Nokia Shanghai Bell discussion NR\_SL\_enh2

[R2-2313266](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313266.zip) Discussion on remaining issues for SL-U LG Electronics France discussion NR\_SL\_enh2

### 7.15.3 Control plane

Includes further clarifications/changes based on running CRs, other RRC/Capability detailed stage 3 issues, e.g. based on open issue list provided by RRC/Capability CR rapporteur.

[R2-2311805](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311805.zip) Remaining issues for Control plane vivo discussion

[R2-2311941](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311941.zip) Discussion on remaining FFS issues on control plane for SL evo ZTE Corporation, Sanechips discussion Rel-18 NR\_SL\_enh2

[R2-2312050](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312050.zip) Remaining CP open issues for NR SL CA CATT discussion

[R2-2312455](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312455.zip) Stage-3 issues of control plane for NR SL Lenovo discussion Rel-18

### 7.15.4 User plane

Includes further clarifications/changes based on running CRs, other MAC/PDCP detailed stage 3 issues, e.g. based on open issue list provided by MAC/PDCP CR rapporteur.

[R2-2311876](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311876.zip) Left issue on stage-3 MAC running-CR OPPO discussion Rel-18 NR\_SL\_enh2

[R2-2311942](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311942.zip) Discussion on remaining FFS issues on user plane for SL evo ZTE Corporation, Sanechips discussion Rel-18 NR\_SL\_enh2

[R2-2312049](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312049.zip) Finalization on remaining Stage-3 issues in TS 38.323 running CR CATT, CICTCI, Xiaomi, Apple, OPPO, LG Electronics Inc., vivo, Huawei, HiSilicon, NEC, MediaTek Inc. discussion

[R2-2312051](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312051.zip) Remaining UP open issues for SL-U CATT discussion

[R2-2312179](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312179.zip) MAC Stage 3 Issues InterDigital discussion Rel-18 NR\_SL\_enh2

[R2-2312194](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312194.zip) Open issue on stage-3 MAC running CR LG Electronics France discussion NR\_SL\_enh2

[R2-2312433](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312433.zip) Further clarification on MAC CR Xiaomi discussion

[R2-2312456](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312456.zip) Stage-3 issues of user plane for NR SL Lenovo discussion Rel-18

[R2-2312788](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312788.zip) UP issues for SL-U and SL-CA Nokia, Nokia Shanghai Bell discussion

[R2-2312933](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312933.zip) Correction to LTE V2X and NR V2X Co-channel Qualcomm India Pvt Ltd CR Rel-18 38.321 17.6.0 1713 - B NR\_SL\_enh2

[R2-2313027](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313027.zip) 7.15.4  MAC issues Samsung Electronics Co., Ltd discussion Rel-18 NR\_SL\_enh2

[R2-2313154](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313154.zip) Remaining issues on SL-U SHARP Corporation discussion Rel-18

## 7.16 Artificial Intelligence Machine Learning for NR air interface

(FS\_NR\_AIML\_air; leading WG: RAN1; REL-18; WID:[RP-221348](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_96/Docs/RP-221348.zip))

Time budget: 1 TU

Tdoc Limitation: 4 tdocs

Aspects of on-line/real-time training are deprioritized.

NOTE RAN1 parts of the TR SHALL be used as baseline for RAN2 discussions. There is NO need to rediscuss in / input to RAN2 parts that has already been agreed in RAN1.

Contributions should have proposed TPs

### 7.16.1 Organizational

LS ins. Rapporteur input, e.g.

RAN2 input to the TR.

*Including outcome of [POST123bis][017][AI/ML] TP update (Ericsson)*

[R2-2311720](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311720.zip) Reply LS on Data Collection Requirements and Assumptions (R1-2310681; contact: Qualcomm) RAN1 LS in Rel-18 FS\_NR\_AIML\_air To:RAN2

=> Noted

[R2-2311766](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311766.zip) LS on AI/ML Core Network enhancements (S2-2311921; contact: Qualcomm) SA2 LS in Rel-19 To:RAN, RAN1, RAN2, RAN3 Cc:SA

=> Noted

[R2-2313106](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313106.zip) Open Issues / Rapporteur Insights Ericsson, Qualcomm Incorporated discussion Rel-18 FS\_NR\_AIML\_air

=> Noted

[R2-2313107](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313107.zip) R2 input to TR 38.843 Ericsson draftCR Rel-18 38.843 1.1.0 B FS\_NR\_AIML\_air

=> The TP is endorsed and will be updated post meeting with agreements

=> The TP will be reviewed by email

=> rapporteur to check deadline with RAN1

[R2-2313108](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313108.zip) Highlights of [POST123bis][017][AI/ML] TP update (Ericsson) Ericsson discussion Rel-18 FS\_NR\_AIML\_air

=> Noted

[R2-2313315](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313315.zip) Discussion on Response LS to SA2 Nokia, Nokia Shanghai Bell discussion Rel-18 FS\_NR\_AIML\_air Withdrawn

### 7.16.2 AIML methods

Explore AIML methods that are expected applicable to this SI and their expected or potential architecture (allocation of functionality to entities), Identification aspects, other framework aspects, impact on RAN2. Most of LCM is in RAN2 scope.

Both general aspects and use-cases specific aspects are applicable (for use cases in scope). . Please input to 7.16.2.x

#### 7.16.2.1 Architecture and General

Mapping of Functionality to entities, general aspects.

##### **Functionality mapping**

[R2-2312674](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312674.zip) Discussion on the mapping of AIML functions to entities CMCC discussion Rel-18 FS\_NR\_AIML\_air

Proposal 1: RAN2 to keep gNB for model training and model transfer/delivery in the mapping of functions-to-entities Tables for beam management with UE-side model.

- Ericsson, Samsung, Qualcomm, NEC, and Nokia doesn’t think this is feasible and it would be very complex.

- Apple, Oppo, CATT, ZTE and Huawei agrees with P1 and this was agreed in RAN1 and there are no technical issue.

- Tmobile asks how the gNB has enough processing power to do this

- Samsung indicates that the second one is referring to model transfer and we haven’t even decided.

- Intel understands that gNB cannot manage UE specific models but it could be ok

- AT&T would like to see the OAM solution in the table.

- Mediatek thinks it is ok to keep it.

- Vivo thinks that for positioning it cannot done at the gNB but for CSI it can be done in gNB.

Proposal 2: RAN2 to keep LMF for model training and model transfer/delivery in the mapping of functions-to-entities Tables for positioning with UE-side model.

Proposal 3: RAN2 to remove all FFSs (except what is proposed in P1 and P2) in the mapping of functions-to-entities Tables.

Proposal 4: The Table 1 can be used as starting point for discussion on the mapping of AI/ML functionality to entities for CSI prediction with UE-side model.

Table 1: The mapping of AI/ML functions to physical entities for CSI prediction with UE-side model

|  |  |  |  |
| --- | --- | --- | --- |
|  | AL/ML functions (if applicable) | | Mapped entities |
| a) | Model training(offline training) | | UE-side OTT server, UE, gNB |
| b) | Model transfer/delivery | | UE-side OTT server->UE, gNB->UE |
| c) | Inference | | UE |
| d) | Performance monitoring | Functionality monitoring | UE (UE monitors the performance, and reports to gNB), gNB (gNB monitors the performance) |
| Model monitoring | UE |
| e) | Model/functionality control | Model selection, (de)activation, switching | UE |
| Functionality selection, (de)activation, switching | UE, gNB |
| Functionality fallback | gNB |

Note 1: For a), only data collection part may be further discussed, how to perform the model training is up to implementation.

Note 2: For b), no model transfer/delivery is expected if the entity for model training and model inference is the same one.

Proposal 5: RAN2 to capture the agreed mapping of functions-to-entities Tables into TR 38.843.

[R2-2311865](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311865.zip) Discussion on the mapping of functionality to entities vivo discussion Rel-18 FS\_NR\_AIML\_air

Proposal 3: Remove the FFS related to CN in functionality mapping tables. And add a note that whether model training at CN and model delivery/transfer from CN to UE is supported is pending to SA2 decision.

Proposal 5: For UE-side model, Remove the FFS related to OAM in functionality mapping tables. And add a note that whether model training at OAM and model delivery/transfer from OAM is supported is pending to SA5 decision.

CSI feedback

Proposal 6: For CSI compression with two-sided model, keep the UE in Model/functionality control. Can revisit and decide whether to specify in WI phase.

CSI feedback

Proposal 7: For beam management with UE-side model, keep the gNB in model training and model transfer/delivery from gNB to UE. Can revisit and decide whether to specify in WI phase.

Proposal 8: For beam management with NW-side model, remove the OTT server in model training and model transfer/delivery from OTT server to gNB.

Positioning accuracy enhancement

Proposal 9: For positioning with UE/gNB-side model, keep the model training at LMF and model delivery/transfer from LMF to UE/gNB.

Proposal 10: Whether LMF will perform the model training by itself or offload the model training functionality to other CN entities (e.g., NWDAF) needs coordination with SA2.

[R2-2312558](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312558.zip) On the involvement of Core Network Entities Qualcomm Incorporated discussion Rel-18

Proposal 1: 3GPP specifications shall support the deployment of the UE-side training server within the core network.

Proposal 2: 3GPP specifications shall support the deployment of the UE model storage within the core network.

**Discussion**

- Ericsson thinks that gNB we can study it as it in RAN2 but don’t agree, and with CN we couldn’t study it.

- Lenovo would like to keep the LMF. Qualcomm understand that in RAN1 there was no consensus.

- AT&T thinks we should keep the gNB case for the cell specific case and separate model training and transfer. Tmobile agrees and we should remove model training

- Verizon would like to keep OAM in the picture for both training and transfer.

**Agreements:**

1. For CN FFS, we will remove it and add a NOTE indicating that it was identified but RAN2 didn’t study as it is out of scope of RAN2
2. [CB after the model transfer] we will remove the gNB and LMF (if RAN1 agrees it can be added by RAN1)

##### **Applicability conditions**

[R2-2312317](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312317.zip) Remaining issues on Model ID and additional conditions Apple discussion Rel-18 FS\_NR\_AIML\_air

Proposal 7: Introduce indication of additional conditions from NW to UE. Its details and format (e.g., open format vs different IDs) are left to RAN1 to decide.

Proposal 8: Regarding to the signaling of indication of additional conditions from NW to UE, both RRC and MAC-CE can be considered in normative phase.

Proposal 9: The transmission of additional conditions from NW to UE can be initiated vie below two approaches:

• NW initiated approach: NW sends the indication of additional conditions to the UE based on its implementation.

• UE initiated approach: Upon UE request, NW sends the indication of additional conditions to the UE.

[R2-2313145](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313145.zip) Discussion on function mapping and additional conditions Huawei, HiSilicon discussion Rel-18 FS\_NR\_AIML\_air

Observation 1: Several methods are discussed by RAN1, in order to send NW-side additional conditions to UE.

Observation 2: For Model identification and the NW-side additional conditions, RAN1 should identify the necessity first.

Proposal 1: Signaling of additional conditions from network to UE is not pursued.

[R2-2313030](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313030.zip) Further discussion on additional conditions and applicability indication vivo discussion FS\_NR\_AIML\_air

(moved from 7.16.3)

Observation 1: UEAssistanceInformation is used for reporting UE preference on configurations, whether and when the UE sends the UAI to the network is up to UE.

Observation 2: UEInformationResponse is used for reporting information available in UE, the network could request the information whenever the network needs it.

In summary, our proposals are listed as follow:

Proposal 1: For UE-side model, if there are additional conditions to be verified at NW, UEInformationRequest/Response can be considered as an alternative for additional conditions transfer from UE to NW.

Proposal 2: For UE-side model, if model management is located at NW, RRCReconfiguration/ UEAssistanceInformation can be considered as an alternative for applicability indication from UE to NW.

Proposal 3: For UE-side model that is transferred from NW to UE, if there are additional conditions to be verified at UE, the additional conditions can be sent from NW to UE during model transfer.

Proposal 4: For NW-side model, if there are additional conditions to be verified at UE, RRCReconfiguration/UEAssistanceInformation can be considered as an alternative for applicability indication from UE to NW.

Proposal 5: For both UE-side and NW-side models, no need to send applicability indication from NW to UE.

[R2-2311798](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311798.zip) Function to Entity Mapping OPPO discussion Rel-18 FS\_NR\_AIML\_air

[R2-2311799](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311799.zip) Discussion on Model Identification OPPO discussion Rel-18 FS\_NR\_AIML\_air

[R2-2311800](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311800.zip) Discussion on SA2 LS OPPO discussion Rel-18 FS\_NR\_AIML\_air

[R2-2311867](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311867.zip) Reply Ls on AI/ML Core Network enhancements vivo, Qualcomm Incorporated discussion Rel-18 FS\_NR\_AIML\_air

[R2-2311874](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311874.zip) Discussion on architecture aspects Xiaomi discussion

[R2-2312013](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312013.zip) Further discussions on additional condition reporting, model identification and meta information CATT, Turkcell discussion Rel-18 FS\_NR\_AIML\_air

[R2-2312014](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312014.zip) Considerations on functions to entities mapping and CN impacts CATT, Turkcell discussion Rel-18 FS\_NR\_AIML\_air

[R2-2312033](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312033.zip) remaining issue of Functionality mapping Intel Corporation discussion Rel-18 FS\_NR\_AIML\_air

[R2-2312215](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312215.zip) Discussion o LS from SA2 on Rel-18 AI/ML for air interface NTT DOCOMO, INC. discussion Rel-18

[R2-2312318](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312318.zip) Remaining issues on functionality mapping Apple discussion Rel-18 FS\_NR\_AIML\_air

[R2-2312484](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312484.zip) Discussion on UE-sided model trained by LMF for positioning Lenovo discussion Rel-18

[R2-2312559](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312559.zip) Discussion on the need for additional conditions identifiers and meta info contents Qualcomm Incorporated discussion Rel-18

[R2-2312728](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312728.zip) Discussion on Applicability Conditions of AI/ML MediaTek Inc. discussion

[R2-2312778](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312778.zip) Further Discussion on Functionality Mapping ZTE Corporation, Sanechips discussion Rel-18 FS\_NR\_AIML\_air

[R2-2312781](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312781.zip) Further Discussion on General Aspect of AI Functionality and Model ZTE Corporation, Sanechips discussion Rel-18 FS\_NR\_AIML\_air

[R2-2312955](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312955.zip) Reporting of AI/ML additional conditions and UE’s internal conditions between the UE and the network SHARP Corporation discussion Withdrawn

[R2-2313109](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313109.zip) Applicability reporting Ericsson discussion Rel-18 FS\_NR\_AIML\_air

[R2-2313148](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313148.zip) Discussion on SA2 LS S2-2311921 Huawei, HiSilicon discussion Rel-18 FS\_NR\_AIML\_air

[R2-2313158](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313158.zip) AIML method\_Architecture General LG Electronics discussion Rel-18 FS\_NR\_AIML\_air

[R2-2313181](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313181.zip) Reporting of AI/ML additional conditions and UE’s internal conditions between the UE and the network SHARP Corporation discussion

[R2-2313234](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313234.zip) Architecture and general aspects of AI/ML for NR air interface AT&T discussion

[R2-2313396](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313396.zip) AI/ML Architecture and TP Recommendation Nokia, Nokia Shanghai Bell discussion Rel-18 FS\_NR\_AIML\_air

[R2-2313402](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313402.zip) Discussion on remaining open issues and proposed way forward Futurewei Technologies discussion Rel-18

[R2-2313505](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313505.zip) Discussion on Response LS to SA2 Nokia, Nokia Shanghai Bell discussion Rel-18 FS\_NR\_AIML\_air

[R2-2313516](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313516.zip) Function-to-entity mapping Ericsson discussion

#### 7.16.2.2 Data Collection

Postpone evaluation discussion unitil RAN1 reply is received. Can continue to discussion Open issues.

Mapping of functionality to entities, for Data collection (i.e. do we use the existing data collection frameworks as is or what modifications do we expect, any aspects that is not covered that may be important?)

##### **UE side model training**

R2-2312560 Data collection requirements for training UE models Qualcomm Incorporated, vivo, Mediatek, Ericsson, OPPO, Vodafone, Nokia, Nokia Shanghai Bell, Sony discussion Rel-18

=> Revised in R2-2313886

[R2-2313886](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312560.zip) Data collection requirements for training UE models Qualcomm Incorporated, vivo, Mediatek, Ericsson, OPPO, Vodafone, Nokia, Nokia Shanghai Bell, Sony, Verizon discussion Rel-18

Proposal 1: The data collection for UE-side model training shall satisfy at least the following requirements:

1. The collected dataset should be accessible to entities inside or outside the MNO network with an SLA with the MNO, e.g. OAM controlled by mobile network operators.

2. Operators should have control over and awareness of the data collection process.

3. User privacy and security should be preserved.

4. Minimize the impact of additional air-interface traffic.

5. Futureproof and extendable design.

1. *The collected data is terminated in MNO and accessible to entities inside or outside of MNO*
2. *Operators should have awareness/control of the data collection process (i.e. authorization). Understanding is that no access of propriety data is required.*

Discussion

- AT&T thinks that we should update that the collected data is terminated in MNO and accessible to entities inside or outside of MNO for 5 we should be able to standardize.

- Samsung objects to 1, 2 and 3. For NW side we considered OTT transparent to 3GPP and this can be the baseline. Not supportive with the data being shared with other entities. Qualcomm thinks that we should only discuss 3GPP solution and from there we can talk to SA2 how concerns like security and data privacy is ensured.

- Apple agrees with Samsung and would like to understand what is the baseline, which should be OTT.

- Samsung would like to ensure that data ownership is respected and it cannot be shared. ZTE agrees with Samsung and we should have a motivation as to why 3GPP solutions is needed.

- Huawei thinks that it is OAM then we can use MDT and this transmission path is within RAN2.

- Qualcomm thinks that we should tell SA2.

- Samsung doesn’t see why the network would control the data collection. Ericsson explains that even if the OTT controls the network should be involved (e.g. authorization)

- AT&T would like to ensure that three is control.

- Intel thinks that we should separate between proprietary and standardized dtaa

- Apple doesn’t want to preclude the UE autonomous cases and have operators always be in control

- MEdiatek thinks that if the solution is implementation based there are no requirements, but for 3GPP based solution these are the requirements

- CATT thinks that awareness and control is not enough.

- Interdigital agrees with Mediatek

- Samsung thinks that we cannot discuss this without understand what type of data and how it work.

- Nokia thinks that

=> Noted

Solutions that can be captured?

• 1. UE collects and directly transfers training data to the OTT server

1a) OTT (3GPP transparent)

1b) OTT (non-3GPP transparent)

• 2 non-OTT 3GPP aare

UE collects training data and transfers it to CN. CN transfers the training data to the OTT server.

• Option 3: UE collects training data and transfers it to OAM via gNB. OAM transfers the needed data to the OTT server.

**Possible agreement [CB after offline]:**

1. Solutions that can be attempted to be captured for UE side model training by rapporteur and properly defined OTT and CN

• UE collects and directly transfers training data to the OTT server

1a) OTT (3GPP transparent)

1b) OTT (non-3GPP transparent)

* [AT124][021][AI/ML] UE side data training (Ericsson)

Intended outcome: attempt to capture the acceptable solutions for UE side data training (attempt the solutions 1 and 3)

Deadline: Thursday

[R2-2313904](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312560.zip) Summary of [AT124][021] -Data collection solutions Ericsson discussion Rel-18

[R2-2312730](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312730.zip) Further Discussion on Data Collection for AI/ML MediaTek Inc. discussion

Proposal 2: For UE-side data collection, following additional requirements should be met:

• The collected dataset can include UE vendor-dependent and non-standardized information.

• Assistance information, pertinent to RAN configuration, conditions, and scenarios, is attached to the respective dataset and is understandable to the UE side.

[R2-2313146](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313146.zip) Discussion on data collection Huawei, HiSilicon discussion Rel-18 FS\_NR\_AIML\_air

Proposal 7: For offline training, the data collection between UE and UE-sided OTT server is 3GPP transparent and can be left to implementation (the same as Solution 4a model transfer/delivery from UE-sided OTT server to UE).

[R2-2313087](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313087.zip) Data collection for UE side model training InterDigital Inc. discussion Rel-18 FS\_NR\_AIML\_air

Proposal 1: The agreements in RAN2-123bis for data collection for the training of a network side model to be endorsed also for the data collection for UE side model training, if the training is done in the network (e.g., gNB, OAM, etc.,)

Proposal 2: The OTT server can directly request the UE to perform the data collection, or it can ask the RAN (which can then trigger the data collection from the UE(s)).

Proposal 3: In case the OTT server directly requests the UE to perform the data collection, the UE may send to the RAN:

• indication/request to start the data collection process.

• request the needed configuration information for the data collection (e.g., measurement configuration), if the UE does not already have the required configuration.

• indication/request to send the collected data.

[R2-2311801](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311801.zip) Data Collection for UE Sided Model Training OPPO discussion Rel-18 FS\_NR\_AIML\_air

Proposal 2: RAN2 is kindly asked to consider the following data collection options for UE side model training at the UE-side OTT server.

• Option 1: UE collects and directly transfers training data to the OTT server, e.g., 3GPP transparent dataset delivery.

• Option 2: UE collects training data and transfers it to CN via gNB. CN transfers the training data directly to the OTT server.

• Option 3: UE collects training data and transfers it to OAM via gNB. OAM transfers the needed data directly to the OTT server.

##### **L1 signaling for data collection**

[R2-2312015](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312015.zip) Considerations on data collection of AIML for NR air-interface CATT, Turkcell discussion Rel-18 FS\_NR\_AIML\_air

Proposal 1: L1 signaling/CSI reporting should be used for the data collection framework of model inference at least for CSI and BM use cases.

Proposal 2: L3 signaling related frameworks can be considered for the data collection framework(s) of model training and monitoring by RAN2.

Proposal 5: RAN2 consider not using L1 signaling for data collection of offline model training. Whether it can be used for data collection framework of monitoring could depend on RAN1.

[R2-2312675](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312675.zip) Discussion on data collection for AIML model CMCC discussion Rel-18 FS\_NR\_AIML\_air

Proposal 3: For model monitoring, RAN2 further study the following data collection frameworks for each use case:

- For CSI feedback: MDT, L3 reporting, UAI

- For beam management: L1 reporting, L3 measurement, MDT, UAI

- For positioning: LPP

[R2-2313515](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313515.zip) Data collection for AI/ML Ericsson discussion

Proposal 7 For NW-side performance monitoring, RAN2 waits for RAN1 input on the need to enhance the L1 reporting configuration or the L3 RRC measurement configuration and reporting.

##### **Immediate MDT vs logged MDT**

[R2-2312319](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312319.zip) Remaining issues on data collection for AI/ML Apple discussion Rel-18 FS\_NR\_AIML\_air

Proposal 4: RAN2 confirm that the MDT with logging enhancement is between immediate MDT and logged MDT. Whether to use immediate MDT or logged MDT as baseline framework is left to normative phase.

[R2-2313366](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313366.zip) Data Collection Framework and TP Recommendation Nokia, Nokia Shanghai Bell discussion Rel-18 FS\_NR\_AIML\_air

Proposal 1: To fulfil RAN2 requirements, Immediate MDT framework is recommended to be used as a baseline for training Data Collection framework definition in the normative phase, preserving the data collection requirements extensions.

[R2-2311822](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311822.zip) AIML Data Collection for Model Training NEC discussion FS\_NR\_AIML\_air

[R2-2311866](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311866.zip) Further discussion on data collection framework based on RAN1 LS reply vivo discussion Rel-18 FS\_NR\_AIML\_air

[R2-2311875](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311875.zip) Discussion on data collection Xiaomi discussion

[R2-2312009](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312009.zip) Discussions on AIML data collection Fujitsu discussion Rel-18 FS\_NR\_AIML\_air

[R2-2312010](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312010.zip) Discussion on model functionality\_control and monitoring Fujitsu discussion Rel-18 FS\_NR\_AIML\_air [R2-2309904](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2309904.zip)

[R2-2312034](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312034.zip) discussion on data collection enhancement Intel Corporation discussion Rel-18 FS\_NR\_AIML\_air

[R2-2312076](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312076.zip) Discussion on user consent for AIML data collection NTT DOCOMO, INC. discussion Rel-18

=> Withdrawn

[R2-2312111](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312111.zip) Latency requirement for data collection Samsung Electronics Iberia SA discussion Rel-18 FS\_NR\_AIML\_air

[R2-2312112](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312112.zip) Enhancement of Immediate MDT for NW-side model training Samsung Electronics Iberia SA discussion Rel-18 FS\_NR\_AIML\_air

[R2-2312485](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312485.zip) General aspects on data collection Lenovo discussion Rel-18

[R2-2312486](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312486.zip) Analysis of data collection methods based on RAN1 reply LS Lenovo discussion Rel-18

[R2-2312565](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312565.zip) Discussion on data collection Spreadtrum Communications discussion Rel-18

[R2-2312585](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312585.zip) Discussion on user consent for AIML data collection NTT DOCOMO, INC. discussion Rel-18

[R2-2312779](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312779.zip) Further Discussion On Purpose Driven Data Collection ZTE Corporation, Sanechips discussion Rel-18 FS\_NR\_AIML\_air

[R2-2313159](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313159.zip) AIML method\_Data Collection LG Electronics discussion Rel-18 FS\_NR\_AIML\_air

[R2-2313235](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313235.zip) Data collection aspects of AI/ML for NR air interface AT&T discussion

[R2-2313286](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313286.zip) Discussion on the Data Collection China Unicom discussion Rel-18 FS\_NR\_AIML\_air

#### 7.16.2.3 Control and LCM other

AIML control and LCM (including Model Transfer / Delivery) beyond / other than Data Collection,..

Including outcome of [POST123bis][016][AI/ML] Model transfer (Intel)

##### **Model transfer**

[R2-2312035](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312035.zip) summary of [POST123bis][016][AI/ML] Model transfer (Intel) Intel Corporation discussion Rel-18 FS\_NR\_AIML\_air

=> Noted

Discussion

- Ericsson would like to prioritize the solutions that map to the use cases in the functionality mapping.

- Qualcomm thinks that we have done the analysis. Intel agrees

=> all tables will be included in TR

=> update column three to “**RAN specification potential impact”**

=> Update “ A5 - NW controllability on model transfer/delivery and management”

[R2-2312780](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312780.zip) Further Discussion on Model TransferDelivery for AIML ZTE Corporation, Sanechips discussion Rel-18 FS\_NR\_AIML\_air

=> Noted

[R2-2312320](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312320.zip) Remaining issues on model transfer Apple discussion Rel-18 FS\_NR\_AIML\_air

Proposal 4: Because RAN1 have not specify any requirement for model transfer (e.g., latency requirement), RAN2 capture that both Reactive model transfer/delivery and Proactive model transfer/delivery can be considered in normative phase.

=> RAN2 capture that both Reactive model transfer/delivery and Proactive model transfer/delivery can be considered in normative phase.

##### **LCM Signaling**

[R2-2313176](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313176.zip) LCM signaling InterDigital Inc., Intel Corporation, ZTE Corporation, Apple, Vivo, LG Electronics Inc. discussion Rel-18 FS\_NR\_AIML\_air

=> Revised in [R2-231386](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313176.zip)7

[R2-231386](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313176.zip)7 LCM signaling InterDigital Inc., Intel Corporation, ZTE Corporation, Apple, Vivo, LG Electronics Inc., OPPO discussion Rel-18 FS\_NR\_AIML\_air

*Proposal 1: RAN2 includes in the TR signalling for AI/ML control/management that can enable both model ID-based and functionality-based LCM.*

*Proposal 2: Adopt Text Proposal into TR 38.843.*

- Nokia asks what does it mean UE makes a decision and reports to the network and doesn’t report to network. Interdigital explains that 3 is configured by network and 4 it is UE autonomous.

- Huawei asks if this is just capturing what RAN1 has decided? Interdigital indicates that it doesn’t go into use cases but it is just a general framework and anything else can be decided later.

- Apple thinks that for UE sided models we still need the option for the UE to make a decision. We are just capturing procedure from RAN2 perspective.

- AT&T supports this proposal and it is important from R2 perspective how it is done.

- Vivo confirms that this is generic figures and we can review and discuss wording.

- ZTE would like to add something to explain the function box and make it clear what management is. Interdigital thinks that we can add description

- Lenovo thinks that the “management” box in figure 2 should be in NW side

- Nokia asks what the management request means, during email discussion we should capture where the UE can autonomously change the models.

- Mediatek would like to have to like to have a mapping to a use case. ZTE doesn’t thinks RAN1 has made enough progress. Huawei thinks that we can add a note that mapping between use cases and solution can be left to RAN1.

- Samsung thinks that management is very abstract and we should clarify what it means, inference, training, etc etc.

- Nokia thinks that we should add a clarification that the solutions don’t mean that you have to support functionality and model.

=> The TP will be updated and discussed in offline

=> Revised in R2-2313903

* [AT124][020][AI/ML] LCM (Interdigital)

Intended outcome: review update TP with comments from meeting and after reviewing Nokia TP. Keep description simple

Deadline: Thursday

[R2-2313903](file:///C:\\Users\\panidx\\OneDrive%20-%20InterDigital%20Communications,%20Inc\\Documents\\3GPP%20RAN\\TSGR2_124\\Docs\\R2-2313176.zip) LCM signaling InterDigital Inc., Intel Corporation, ZTE Corporation, Apple, Vivo, LG Electronics Inc., OPPO discussion Rel-18 FS\_NR\_AIML\_air

[R2-2313316](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313316.zip) AI/ML control and other topics Nokia, Nokia Shanghai Bell discussion Rel-18 FS\_NR\_AIML\_air

Proposal 17: RAN2 to agree that the functionality performance monitoring is part of functionality-based LCM.

Proposal 18: Adopt into the TR 38.843, the text describing NW-side and UE-side monitoring with NW-side functionality control.

[R2-2313398](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313398.zip) Discussion on model model-based management LG Electronics France discussion Rel-18 38.843 FS\_NR\_AIML\_air [R2-2309866](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2309866.zip)

Proposal 2 Capture TP in Annex about LCM procedure especially for model monitoring and model switching functionality and its possible issues into the TR.

[R2-2311785](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311785.zip) AI/ML model delivery and LCM Xiaomi discussion Rel-18 FS\_NR\_AIML\_air

[R2-2311820](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311820.zip) AIML LCM Procedure NEC discussion FS\_NR\_AIML\_air

[R2-2311821](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311821.zip) AIML Model Identification and Management NEC discussion FS\_NR\_AIML\_air

[R2-2311823](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311823.zip) AIML Model transfer NEC discussion FS\_NR\_AIML\_air

[R2-2312016](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312016.zip) Considerations on AIML model transfer CATT, Turkcell discussion Rel-18 FS\_NR\_AIML\_air

[R2-2312036](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312036.zip) proactive and reactive model transfer/delivery Intel Corporation discussion Rel-18 FS\_NR\_AIML\_air

[R2-2312072](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312072.zip) Discussion on AIML applicability condition NTT DOCOMO, INC. discussion Rel-18

=> Withdrawn

[R2-2312113](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312113.zip) AI/ML model transfer/delivery solutions Samsung Electronics Iberia SA discussion Rel-18 FS\_NR\_AIML\_air

[R2-2312130](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312130.zip) AI/ML functionality-based and model-ID based LCM Samsung Electronics Iberia SA discussion Rel-18 FS\_NR\_AIML\_air

[R2-2312487](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312487.zip) Discussion on functionality and model identification Lenovo discussion Rel-18

[R2-2312561](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312561.zip) Towards one LCM: Merging Functionality and Model-ID based LCMs Qualcomm Incorporated discussion Rel-18

[R2-2312562](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312562.zip) Discussion on Model Transfer/Delivery Qualcomm Incorporated, Vivo discussion Rel-18

[R2-2312584](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312584.zip) Discussion on AIML applicability condition NTT DOCOMO, INC. discussion Rel-18

[R2-2312731](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312731.zip) Discussion on AI/ML Model Transfer/Delivery MediaTek Inc. discussion

[R2-2312765](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312765.zip) Discussion on the AI based positioning Xiaomi discussion

[R2-2312846](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312846.zip) Options for Model ID management Sony discussion Rel-18 FS\_NR\_AIML\_air

[R2-2313030](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313030.zip) Further discussion on additional conditions and applicability indication vivo discussion FS\_NR\_AIML\_air

[R2-2313110](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313110.zip) Model transfer (Text Proposal) Ericsson discussion Rel-18 FS\_NR\_AIML\_air

[R2-2313147](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313147.zip) Discussion on model transfer and LCM other Huawei, HiSilicon discussion Rel-18 FS\_NR\_AIML\_air

[R2-2313209](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313209.zip) AIML Model transfer/delivery InterDigital Inc. discussion Rel-18 FS\_NR\_AIML\_air

[R2-2313236](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313236.zip) AI/ML model transfer and LCM AT&T discussion

[R2-2313403](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313403.zip) Discussion of AI/ML Life Cycle Management Futurewei Technologies discussion Rel-18

## 7.17 Dual Transmission Reception (Tx Rx) Multi-SIM for NR

(NR\_DualTxRx\_MUSIM-Core; leading WG: RAN2; REL-18; WID: [RP-231461](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_100/Docs/RP-231461.zip))

Time budget: 1 TU

Tdoc Limitation: 3 tdocs

### 7.17.1 Organizational

Rapporteur input (e.g., work plan, remaining open issue list), incoming LS etc.

Latest version running CRs submitted by the spec editors.

[R2-2311844](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311844.zip) Running RRC CR for NR MUSIM enhancements vivo draftCR Rel-18 38.331 17.6.0 NR\_DualTxRx\_MUSIM-Core Withdrawn

[R2-2311845](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311845.zip) [Post123bis][205][MUSIM] RRC Running CR and further discussions (vivo) vivo other Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2311933](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311933.zip) Running RRC CR for NR MUSIM enhancements vivo CR Rel-18 38.331 17.6.0 4399 - B NR\_DualTxRx\_MUSIM-Core Withdrawn

[R2-2311936](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311936.zip) Introduction of NR MUSIM enhancements vivo CR Rel-18 38.331 17.6.0 4401 - B NR\_DualTxRx\_MUSIM-Core

[R2-2312077](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312077.zip) Introduction of R18 MUSIM UE Capabilities Huawei, HiSilicon CR Rel-18 38.331 17.6.0 4408 - B NR\_DualTxRx\_MUSIM-Core

[R2-2312081](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312081.zip) Introduction of R18 MUSIM UE Capabilities Huawei, HiSilicon CR Rel-18 38.306 17.6.0 0976 - B NR\_DualTxRx\_MUSIM-Core

[R2-2313240](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313240.zip) 38.300 Running CR for NR MUSIM enhancements China Telecom Corporation Ltd. CR Rel-18 38.300 17.6.0 0741 - B NR\_DualTxRx\_MUSIM-Core

[R2-2313330](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313330.zip) 37.340 running CR for introduction of DualTxRx\_MUSIM ZTE Corporation, Sanechips CR Rel-18 37.340 17.6.0 0373 - B NR\_DualTxRx\_MUSIM-Core

### 7.17.2 Procedures and signalling for MUSIM temporary capability restriction

Remaining aspects for the “proactive” and “reactive” procedures

Remaining signaling design details for the temporary capability restrictions.

Including email report of long email discussion [205].

Contributions on open issues addressed explicitly by the email discussion [205], should be avioded

[R2-2311802](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311802.zip) Procedures and signalling for MUSIM temporary capability restriction OPPO discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2311846](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311846.zip) Discussion on the remaining issue of MUSIM temporary capability restriction vivo report Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2312154](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312154.zip) Discussion on WA and Capturing Early indication for ResumeReq Intel Corporation discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2312303](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312303.zip) Leftover issues on MUSIM temporary capability restriction Apple discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2312304](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312304.zip) Clarification on the gap information reporting Apple discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2312305](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312305.zip) Early MUSIM indication during RRC resume procedure Apple discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2312395](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312395.zip) Discussion on solution of early indication of temporary capability restriction NEC discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2312430](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312430.zip) Remaining consideration on MUSIM early indication DENSO CORPORATION discussion NR\_DualTxRx\_MUSIM-Core

[R2-2312642](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312642.zip) Discussion on remaining issues for temporary capability restriction Huawei, HiSilicon discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2312729](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312729.zip) Discussion on MUSIM temporary capability restriction in NR-DC Huawei, HiSilicon discussion

[R2-2312816](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312816.zip) On some restricted capabilities for Rel-18 MUSIM UE Ericsson discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2312817](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312817.zip) Indication of restricted capabilities at RRC Setup and Resume by MUSIM UE Ericsson discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2312818](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312818.zip) Discussion on remaining open issues on capability restriction Ericsson discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2312862](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312862.zip) Further analysis on signalling procedure for capability restriction Nokia, Nokia Shanghai Bell discussion

[R2-2312863](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312863.zip) Capability restriction for specific capabilities and Interworking issues with existing features Nokia, Nokia Shanghai Bell discussion

[R2-2313064](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313064.zip) Control signaling for Dual-Active MUSIM Qualcomm Incorporated discussion

[R2-2313068](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313068.zip) Early Indication in RRC Resume procedure LG Electronics discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2313069](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313069.zip) Supporting Proactive cases in other scenarios LG Electronics discussion Rel-18 NR\_DualTxRx\_MUSIM-Core [R2-2311098](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311098.zip)

[R2-2313237](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313237.zip) Procedure for MUSIM temporary capability restriction China Telecom Corporation Ltd. discussion

[R2-2313289](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313289.zip) Considerations on Wait Timer Configuration and Handling Samsung discussion Rel-18

[R2-2313332](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313332.zip) Consideration on the Reactive Procedure ZTE Corporation, Sanechips discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2313333](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313333.zip) Consideration on the Temporory Capability Reporting ZTE Corporation, Sanechips discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2313334](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313334.zip) Consideration on the MN-SN Coordination for the MUSIM ZTE Corporation, Sanechips discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2313350](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313350.zip) Discussion on temporary capability restriction Samsung discussion Rel-18

[R2-2313386](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313386.zip) Clarification on the wait timer for capability restriction Xiaomi discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2313387](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313387.zip) Capability restriction for the proactive approach Xiaomi discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2313388](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313388.zip) Required UE capability bits for Rel-18 MUSIM Xiaomi discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

### 7.17.3 Other

Other remaining aspects if not covered by the previous agenda items, including e.g., aspects related to the RAN4 agreements/reqeusts, if any, and UE capabilit(ies) for the MU-SIM feature(s).

[R2-2311847](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_124\\Docs\\R2-2311847.zip) Discussion on UE capability for MUSIM features vivo discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2311848](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311848.zip) Discussion on MUSIM gap priorities vivo discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2312643](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312643.zip) Discussion on MUSIM UE capabilities Huawei, HiSilicon, Nokia discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

[R2-2312864](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312864.zip) MUSIM Gap collision handling and MUSIM capability interactions Nokia, Nokia Shanghai Bell discussion

[R2-2313420](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313420.zip) Further discussion on UE capabilities and MN-SN coordination Samsung discussion Rel-18 NR\_DualTxRx\_MUSIM-Core

## 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

*Running CRs expected as input in this meeting: 38.300 (Nokia), 38.331 (ZTE), 38.321 (Huawei),* 38.306 (Intel).

*Including outcome of [POST123][303][MT-SDT] CR to 38.306 (Intel)*

[R2-2312091](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312091.zip) Introduction of MT-SDT ZTE Corporation (rapporteur) CR Rel-18 38.331 17.6.0 4194 3 B NR\_MT\_SDT-Core [R2-2310114](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310114.zip)

=> The CR is agreed

[R2-2312160](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312160.zip) UE capabilities for Rel-18 MT-SDT WI Intel Corporation draftCR Rel-18 38.306 17.6.0 NR\_MT\_SDT-Core

=> The CR is endorsed and will be merged with mega CR

[R2-2312161](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312161.zip) UE capabilities for Rel-18 MT-SDT WI Intel Corporation draftCR Rel-18 38.331 17.6.0 NR\_MT\_SDT-Core

=> The CR is endorsed and will be merged with mega CR

[R2-2312252](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312252.zip) Introduction of MT-SDT to MAC spec Huawei, HiSilicon CR Rel-18 38.321 17.6.0 1699 - B NR\_MT\_SDT-Core

=> The CR is revised in [R2-2313592](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312252.zip)

[R2-2313592](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312252.zip) Introduction of MT-SDT to MAC spec Huawei, HiSilicon CR Rel-18 38.321 17.6.0 1699 - B NR\_MT\_SDT-Core

=> add case that no rsrp threshold is configured

=> add TEI18 code

=> will be reviewed by email

* [AT124][014][MT-SDT] 38.321 CR (Huawei)

- Intended outcome: agree to CR by email

- Deadline: Friday

[R2-2313426](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313426.zip) Introduction of MT-SDT in Stage-2 Nokia, Nokia Shanghai Bell CR Rel-18 38.300 17.6.0 0711 2 B NR\_MT\_SDT-Core [R2-2311185](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311185.zip)

=> The CR is agreed

### 7.18.2 Others

*Essential corrections only*

[R2-2312396](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312396.zip) MT-SDT for RedCap UE NEC discussion Rel-18 NR\_MT\_SDT-Core

*Proposal 2: No need to introduce a new initiation condition for the resume procedure initiated in response to RAN paging (i.e., MT-SDT ) in section 5.3.13.1b of TS 38.331, in case that the RedCap-specific initial downlink BWP includes no CD-SSB but ncd-SSB-RedCapInitialBWP-SDT is configured for a RedCap UE .*

[R2-2312913](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312913.zip) Discussion on NCD-SSB for MT-SDT Qualcomm Incorporated discussion NR\_MT\_SDT-Core

*Proposal 1: The conditions for a RedCap UE triggering MT-SDT should include when RedCap-specific initial BWP includes no CD-SSB, ncd-SSB-RedCapInitialBWP-SDT is configured.*

Discussion

- ZTE has followed the NEC proposal and if there is anything needed we can add this condition in the field.

- Vivo doesn’t think any spec changes are need and we could capture something in the notes. if NW would like to trigger MT-SDT in another bwp, the network should guarantee.

- Qualcomm thinks that we should at least capture it in a field description.

- Huawei also doesn’t see the need and it is already clear that the conditions have to be met.

=> keep the spec unchanged “*No need to introduce a new initiation condition for the resume procedure initiated in response to RAN paging (i.e., MT-SDT ) in section 5.3.13.1b of TS 38.331, in case that the RedCap-specific initial downlink BWP includes no CD-SSB but ncd-SSB-RedCapInitialBWP-SDT is configured for a RedCap UE”*

=> The understanding is that the network would guarantee *that for a* RedCap UE triggering MT-SDT, if RedCap-specific initial BWP includes no CD-SSB, ncd-SSB-RedCapInitialBWP-SDT is configured

[R2-2313162](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313162.zip) Discussion on remaining issues for MT-SDT Ericsson discussion NR\_MT\_SDT-Core

Proposal 1 A Regular BSR is triggered if the data volume in LCHs configured for SDT exceeds a SDT volume threshold.

*-* ZTE thinks that the network can rely on periodic BSR and the RAN3 feature is not broken.

*-* Nokia thinks that this could help

*-* Huawei thinks that this is a new functionality

Proposal 2 The SDT volume threshold is configured in SI.

Proposal 3 If no feedback is received for the initial CG transmission when CG periodicity is long, a RA-SDT procedure is triggered.

=> Noted

[R2-2313427](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313427.zip) Draft CR on the MT-SDT MAC implementation Nokia, Nokia Shanghai Bell draftCR Rel-18 38.321 17.6.0 NR\_MT\_SDT-Core

## 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))

Time budget: 1 TU

Tdoc Limitation: 2 tdocs

### 7.19.1 Organizational

Incoming LSs, running CRs, etc.

[R2-2311723](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311723.zip) Reply LS on INACTIVE eDRX above 10.24sec and SDT (R3-235765; contact: Ericsson) RAN3 LS in Rel-18 NR\_REDCAP\_Ph2, NR\_redcap\_enh-Core, NR\_MT\_SDT-Core To:SA2, CT4 Cc:RAN2

[R2-2311760](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311760.zip) Reply LS on INACTIVE eDRX above 10.24sec and SDT (S2-2311359; contact: Intel) SA2 LS in Rel-18 NR\_REDCAP\_Ph2, NR\_redcap\_enh-Core, NR\_MT\_SDT-Core To:RAN3, CT4 Cc:RAN2

[R2-2311911](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311911.zip) Running MAC CR for eRedCap vivo (Rapporteur) CR Rel-18 38.321 17.6.0 1694 - B NR\_redcap\_enh-Core

[R2-2311965](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311965.zip) Introduction of eRedCap in TS 38.300 OPPO CR Rel-18 38.300 17.6.0 0729 - B NR\_redcap\_enh-Core

[R2-2312186](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312186.zip) Open topics on UE capabilities for Rel-18 eRedCap WI Intel Corporation, Huawei, HiSilicon discussion Rel-18 NR\_redcap\_enh-Core

=> Revised in [R2-2313556](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313556.zip)

[R2-2313556](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313556.zip) Open topics on UE capabilities for Rel-18 eRedCap WI Intel Corporation, Huawei, HiSilicon, Ericsson discussion Rel-18 NR\_redcap\_enh-Core

[R2-2312187](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312187.zip) [Temporary CR to TS 38.306] [RAN1 lead features] UE capabilities for Rel-18 eRedCap WI Intel Corporation discussion Rel-18 NR\_redcap\_enh-Core

=> Revised in [R2-2313557](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313557.zip)

[R2-2313557](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313557.zip) [Temporary CR to TS 38.306] [RAN1 lead features] UE capabilities for Rel-18 eRedCap WI Intel Corporation discussion Rel-18 NR\_redcap\_enh-Core

[R2-2312188](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312188.zip) [Temporary CR to TS 38.331] [RAN1 lead features] UE capabilities for Rel-18 eRedCap WI Intel Corporation discussion Rel-18 NR\_redcap\_enh-Core

[R2-2312189](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312189.zip) UE capabilities for Rel-18 eRedCap WI Intel Corporation draftCR Rel-18 38.306 17.6.0 NR\_redcap\_enh-Core

[R2-2312190](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312190.zip) UE capabilities for Rel-18 eRedCap WI Intel Corporation draftCR Rel-18 38.331 17.6.0 NR\_redcap\_enh-Core

[R2-2312638](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312638.zip) Introduction of eRedCap in TS 38.304 Huawei, HiSilicon CR Rel-18 38.304 17.6.0 0364 - B NR\_redcap\_enh-Core

[R2-2313217](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313217.zip) Introduction of eRedCap UEs Ericsson CR Rel-18 38.331 17.6.0 4480 - B NR\_redcap\_enh-Core Late

[R2-2313221](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313221.zip) Remaining open issues in Rel-18 eRedCap WI Ericsson discussion Rel-18 NR\_redcap\_enh-Core

### 7.19.2 Enhanced eDRX in RRC\_INACTIVE

Remaining details, if any.

[R2-2312241](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312241.zip) Remaining issues of enhanced eDRX in RRC\_INACTIVE ZTE Corporation, Sanechips discussion NR\_redcap\_enh-Core

[R2-2312438](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312438.zip) Remaining issues in enhanced eDRX in RRC\_INACTIVE Samsung discussion Rel-18 NR\_redcap\_enh-Core

[R2-2312658](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312658.zip) Discussion on further reduced UE complexity CMCC discussion Rel-18 NR\_redcap\_enh-Core

[R2-2312738](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312738.zip) Discussion on eDRX allowed Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_redcap\_enh-Core

### 7.19.3 Further reduced UE complexity in FR1

*Remaining details, if any.*

[R2-2311912](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311912.zip) Discussion on access restriction for eRedCap vivo, Guangdong Genius discussion Rel-18 NR\_redcap\_enh-Core

[R2-2311913](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311913.zip) Discussion on 2-step RACH for eRedCap vivo, Guangdong Genius discussion Rel-18 NR\_redcap\_enh-Core [R2-2309734](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2309734.zip)

[R2-2311956](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311956.zip) Discussion on early indication for eRedCap UEs OPPO discussion Rel-18 NR\_redcap\_enh-Core

[R2-2311957](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311957.zip) Draft LS on MsgA PRACH based early indication for eRedCap UEs OPPO LS out Rel-18 NR\_redcap\_enh-Core To:RAN1

[R2-2311983](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311983.zip) Discussion on remaining issues on early indication for eRedcap Xiaomi Communications discussion

[R2-2311984](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311984.zip) Discussion on LCID selection for eRedcap UE Xiaomi Communications discussion

[R2-2312041](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312041.zip) 2-step RACH early indication for eRedCap NEC discussion Rel-18 NR\_redcap\_enh-Core

[R2-2312066](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312066.zip) Discussion on separate LCIDs for feature combination CATT discussion Rel-18 NR\_redcap\_enh-Core

[R2-2312243](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312243.zip) Remaining issues of further reduced UE complexity in FR1 ZTE Corporation, Sanechips discussion NR\_redcap\_enh-Core

[R2-2312359](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312359.zip) eRedCap 2-step RACH open issues Apple discussion Rel-18 NR\_redcap\_enh-Core

[R2-2312408](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312408.zip) Issues on the identification of eRedCap UEs Huawei, HiSilicon discussion Rel-18 NR\_redcap\_enh-Core

[R2-2312439](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312439.zip) Remaining issues in further reduced UE complexity in FR1 Samsung discussion Rel-18 NR\_redcap\_enh-Core

[R2-2312639](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312639.zip) Discussion on capaiblity of eRedCap UE Huawei, HiSilicon discussion Rel-18 NR\_redcap\_enh-Core

[R2-2312915](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312915.zip) Discussion on the TP of optional UE capability filter for eRedCap UE Qualcomm Incorporated discussion NR\_redcap\_enh-Core

[R2-2312917](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312917.zip) Discussion on LCID solution of early indication for eRedCap UE Qualcomm Incorporated discussion NR\_redcap\_enh-Core

[R2-2312918](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312918.zip) Discussion on SON/MDT reports for eRedCap Qualcomm Incorporated discussion NR\_redcap\_enh-Core

[R2-2313124](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313124.zip) 2-step RA for R18 eRedCap Nokia, Nokia Shanghai Bell discussion NR\_redcap\_enh-Core

[R2-2313224](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313224.zip) Discussion on 2-step RA for eRedCap UEs Ericsson discussion Rel-18 NR\_redcap\_enh-Core Revised

[R2-2313227](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313227.zip) UE capability and relaxed processing timeline for eRedCap UEs Ericsson discussion Rel-18 NR\_redcap\_enh-Core Revised

[R2-2313291](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313291.zip) Discussion on eRedCap CFR for MBS NTT DOCOMO INC.. discussion Rel-18 NR\_redcap\_enh-Core

[R2-2313339](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313339.zip) Msg5 indication after initial access for eRedCap UEs CATT, Huawei, HiSilicon, Nokia, Nokia Shanghai Bell, Xiaomi discussion Rel-18 NR\_redcap\_enh-Core

[R2-2313461](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313461.zip) Discussion on early indication for Rel-18 eRedCap UE LG Electronics Inc. discussion Rel-18 NR\_redcap\_enh-Core

[R2-2313487](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313487.zip) Discussion on 2-step RA for eRedCap UEs Ericsson, CEPRI discussion Rel-18 NR\_redcap\_enh-Core [R2-2313224](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313224.zip) Withdrawn

[R2-2313488](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313488.zip) UE capability and relaxed processing timeline for eRedCap UEs Ericsson, CEPRI discussion Rel-18 NR\_redcap\_enh-Core [R2-2313227](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313227.zip) Withdrawn

[R2-2313490](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313490.zip) Discussion on 2-step RA for eRedCap UEs Ericsson, CEPRI discussion Rel-18 NR\_redcap\_enh-Core [R2-2313224](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313224.zip)

[R2-2313502](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313502.zip) UE capability and relaxed processing timeline for eRedCap UEs Ericsson, CEPRI discussion Rel-18 NR\_redcap\_enh-Core [R2-2313227](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313227.zip)

## 7.20 NR MIMO evolution

(NR\_MIMO\_evo\_DL\_UL-Core; leading WG: RAN1; REL-18; WID: [RP-223276](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_98e/Docs/RP-223276.zip))

Time budget: 0.75 TU

Tdoc Limitation: 3 tdoc

### 7.20.1 Organizational

Rapporteur input (e.g., work plan, open issue list), incoming LS etc.

Latest verison of running CRs submitted by the spec rapporteurs.

Including report from long email discussion [203] and [204].

[R2-2311976](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311976.zip) Introduction of Rel-18 MIMO for TS 38.321 Samsung CR Rel-18 38.321 17.6.0 1696 - B NR\_MIMO\_evo\_DL\_UL-Core

[R2-2312045](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312045.zip) Introduction of MIMO Evolution Ericsson CR Rel-18 38.331 17.6.0 4406 - B NR\_MIMO\_evo\_DL\_UL-Core

[R2-2312101](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312101.zip) report of [Post123bis][203][MIMOevo] MAC remaining issues Samsung discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2312552](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312552.zip) Report of Post 123bis MIMOevo RRC Ericsson report Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2312563](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312563.zip) Copy of R1-2310692 Consolidated\_Rel-18\_higher\_layer\_parameters\_list Ericsson discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2313417](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313417.zip) Introduction of 2-TA enhancement NTT DOCOMO, INC. CR Rel-18 38.300 17.6.0 0742 - B NR\_MIMO\_evo\_DL\_UL-Core

[R2-2313423](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313423.zip) Remaining open issue list for MIMO evolution NTT DOCOMO, INC. discussion Rel-18

### 7.20.2 Two TAs for multi-DCI multi-TRP

Remaining open issues on two TAs for multi-DCI multi-TRP operation

Contributions on open issues addressed explicitly by the email discussion [203] and [204], should be avioded.

[R2-2312011](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312011.zip) Discussion of supporting 2 TAGs in a serving cell Fujitsu discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2312043](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312043.zip) Discussion on MAC aspects for Two TAs for multi-DCI multi-TRP CATT discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2312044](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312044.zip) Discussion on RRC aspects for Two TAs for multi-DCI multi-TRP CATT discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2312102](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312102.zip) MAC remaining issues on two TAs for multi-DCI multi-TRP Samsung discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2312103](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312103.zip) RRC remaining issues on two TAs for multi-DCI multi-TRP Samsung discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2312221](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312221.zip) Discussion on two TAs for multiple TRPs SHARP Corporation discussion NR\_MIMO\_evo\_DL\_UL-Core

[R2-2312391](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312391.zip) Remaining issues on RA procedure in 2TAs mTRP LG Electronics Inc. discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2312392](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312392.zip) Discussion on MTTD in 2TAs mTRP LG Electronics Inc. discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2312409](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312409.zip) Discussion on remaining issues on MIMO OPPO discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2312479](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312479.zip) Remaining issues on Two TAs for multi-TRP operation Lenovo discussion Rel-18

[R2-2312783](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312783.zip) Further Consideration on the RRC parameter for MIMO evo ZTE Corporation,Sanechips discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2312784](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312784.zip) Further consideration on RACH for MTRP With 2TA ZTE Corporation,Sanechips discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2312785](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312785.zip) Further Consideration on TA Handling for MTRP With 2TA ZTE Corporation,Sanechips discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2312919](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312919.zip) Remaining issues on multi-DCI multi-TRP with two TAs Qualcomm Incorporated discussion NR\_MIMO\_evo\_DL\_UL-Core

[R2-2313390](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313390.zip) Clarification on the PUCCH or SRS release Xiaomi discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2313428](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313428.zip) Contention resolution while SpCell is configured with 2 TAGs Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2313429](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313429.zip) Miscellaneous issues with 2 TAGs framework Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2313439](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313439.zip) Discussion on remaining issues on 2TA enhancement NTT DOCOMO, INC. discussion Rel-18

[R2-2313524](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313524.zip) Remaining issues on 2TA for mTRP Huawei, HiSilicon discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2313537](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313537.zip) Remaining CP issues Ericsson discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core Late

[R2-2313540](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313540.zip) Discussion on OIs for multi-DCI\_TRP 2TAs Ericsson discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core Late

### 7.20.3 Other

Other issues if not covered by the previous agenda items, including e.g., unified TCI extension to mTRP operation, etc..

Contributions on open issues addressed explicitly by the email discussion [203] and [204], should be avioded.

[R2-2312372](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312372.zip) Further corrections on the MIMO RRC parameters Samsung discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2312611](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312611.zip) Design of sDCI MAC CE for Rel-18 MIMO Nokia Corporation discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2313525](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313525.zip) Extension of unified TCI framework for mTRP Huawei, HiSilicon discussion Rel-18 NR\_MIMO\_evo\_DL\_UL-Core

[R2-2313526](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313526.zip) Overlapping UL grants handling for STxMP and codebook configuration for CJT 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: 0.5 TU

Tdoc Limitation: 2 tdoc

### 7.21.1 Organizational

Incoming LSs, Rapporteur input etc, including reports from [Post123bis][851] and [Post123bis][853].

[R2-2311710](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311710.zip) Reply LS on RAN1 impacts regarding enhancements to realize increasing UE power high limit for CA and DC (R1-2310518; contact: Nokia) RAN1 LS in Rel-18 NR\_cov\_enh2-Core To:RAN4 Cc:RAN2

[R2-2311757](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311757.zip) LS reply on further clarifications on enhancements to realize increasing UE power high limit for CA and DC (R4-2317768; contact: Huawei) RAN4 LS in Rel-18 NR\_cov\_enh2 To:RAN1, RAN2

[R2-2312572](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312572.zip) Summary of [POST123bis][851][CE\_enh] CP running CR and open issues (Huawei) Huawei, HiSilicon discussion NR\_cov\_enh2-Core

[R2-2312573](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312573.zip) Introduction of Further NR coverage enhancements in RRC Huawei, HiSilicon CR Rel-18 38.331 17.6.0 4433 - B NR\_cov\_enh2-Core [R2-2310197](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310197.zip)

[R2-2312732](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312732.zip) Introduction of Further NR coverage enhancements to 38.300 China Telecom CR Rel-18 38.300 17.6.0 0733 - B NR\_cov\_enh2-Core

[R2-2312771](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312771.zip) UP open issue list for R18 CE ZTE Corporation, Sanechips Work Plan Rel-18 NR\_cov\_enh2-Core

[R2-2312772](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312772.zip) Introduction of Further NR Coverage Enhancements in MAC spec ZTE Corporation, Sanechips CR Rel-18 38.321 17.6.0 1711 - B NR\_cov\_enh2-Core

### 7.21.2 Control plane issues

Details of RACH configuration and RACH partitioning signalling and any other impacts to CP from RAN1 agreements.

[R2-2311816](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311816.zip) Discussion on Remaining Issues for PRACH Repetition vivo discussion Rel-18 NR\_cov\_enh2-Core

[R2-2311830](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311830.zip) SI request and CFRA Aspects Samsung Electronics Co., Ltd discussion Rel-18 NR\_cov\_enh2-Core

[R2-2312511](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312511.zip) Discussion on the remaining CP issues NEC Corporation. discussion Rel-18 NR\_cov\_enh2-Core

[R2-2312574](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312574.zip) Remaining issues of CP aspects for CE Huawei, HiSilicon discussion NR\_cov\_enh2-Core

[R2-2312750](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312750.zip) Discussion on numberOfRA-PreamblesGroupA for Msg1 repetition CATT discussion Rel-18 NR\_cov\_enh2-Core

[R2-2312773](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312773.zip) Remaining CP issues for CE ZTE Corporation, Sanechips discussion Rel-18 NR\_cov\_enh2-Core

[R2-2313163](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313163.zip) Discussion on Coverage Enhancements CP Ericsson discussion NR\_cov\_enh2-Core

[R2-2313462](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313462.zip) Remaining CP issues on Msg1 repetition LG Electronics Inc. discussion Rel-18 NR\_cov\_enh2-Core

### 7.21.3 User plane issues

Overall RACH procedure and any other MAC impacts

[R2-2311817](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_124\\Docs\\R2-2311817.zip) Discussion on RAN2 Impacts of DWS and DPC Reporting vivo discussion Rel-18 NR\_cov\_enh2-Core

[R2-2311829](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311829.zip) Fallback from lower repetition number to higher repetition number Samsung Electronics Co., Ltd discussion Rel-18 NR\_cov\_enh2-Core

[R2-2311993](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311993.zip) Open issues of power domain enhancements for CE China Telecom discussion Rel-18 NR\_cov\_enh2-Core

[R2-2312575](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312575.zip) Remaining issues of UP aspects for CE Huawei, HiSilicon discussion NR\_cov\_enh2-Core

[R2-2312725](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312725.zip) Discussion on PHR for dynamic waveform switching Xiaomi discussion Rel-18

[R2-2312751](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312751.zip) Discussion on remaining UP issues for Msg1 repetition CATT discussion Rel-18 NR\_cov\_enh2-Core

[R2-2312774](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312774.zip) Remaining UP issues for CE ZTE Corporation, Sanechips discussion Rel-18 NR\_cov\_enh2-Core

[R2-2312954](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312954.zip) Open Issues in PRACH Repetition Qualcomm Incorporated discussion

[R2-2312956](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312956.zip) DPC and DWS UE reporting Qualcomm Incorporated discussion Rel-18

[R2-2313018](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313018.zip) PHR for assumed PUSCH InterDigital discussion Rel-18 NR\_cov\_enh2-Core

[R2-2313164](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313164.zip) Discussion on Coverage Enhancements UP Ericsson discussion NR\_cov\_enh2-Core

[R2-2313430](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313430.zip) Miscellaneous issues with PRACH repetition Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_cov\_enh2-Core

[R2-2313431](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313431.zip) Delta Power Class and assumed PUSCH reporting Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_cov\_enh2-Core

[R2-2313463](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313463.zip) Remaining issues on Coverage Enhancement in UP aspects LG Electronics Inc. discussion Rel-18 NR\_cov\_enh2-Core

## 7.22 Study on low-power wake-up signal and receiver for NR

(FS\_NR\_LPWUS; leading WG: RAN1; REL-18; WID: [RP-232672](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_101/Docs/RP-232672.zip))

Time budget: 0.5 TU

Tdoc Limitation: 2 tdoc

### 7.22.1 Organizational

Incoming LSs, Rapporteur input etc. Including outcome of [Post123bis][563][LP-WUS] R2 Text Proposal (vivo)

[R2-2311914](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_124\\Docs\\R2-2311914.zip) Update of TR 38.869 for LP-WUS WUR vivo (Rapporteur) discussion Rel-18 FS\_NR\_LPWUS

[R2-2311915](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311915.zip) Summary of discussions on open issues for LP-WUS vivo discussion Rel-18 FS\_NR\_LPWUS

[R2-2312571](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312571.zip) TP for TR conclusion on high layer aspects vivo (Rapporteur) discussion Rel-18 FS\_NR\_LPWUS

### 7.22.2 Idle Inactive Mode

[R2-2311774](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311774.zip) Use of low-power receiver in RRC Idle/Inactive Qualcomm Incorporated discussion Rel-18 FS\_NR\_LPWUS

[R2-2311896](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311896.zip) LP-WUS in RRC Idle/ Inactive Mode Lenovo discussion FS\_NR\_LPWUS

[R2-2311916](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311916.zip) Discussion on LP-WUS WUR in RRC\_IDLE INACTIVE vivo discussion Rel-18 FS\_NR\_LPWUS [R2-2309735](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2309735.zip)

[R2-2311969](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311969.zip) Discussion on LP-WUS in RRC\_IDLE/INACTIVE OPPO discussion Rel-18 FS\_NR\_LPWUS

[R2-2311981](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311981.zip) General considerations on the procedure for RRC\_IDLE\_INACTIVE Xiaomi Communications discussion

[R2-2312074](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312074.zip) Discussion on LPWUS in RRC\_IDLE INACTIVE NEC discussion FS\_NR\_LPWUS

[R2-2312298](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312298.zip) RAN2 impact of LP-WUS in RRC\_IDLE/INACTIVE state Apple discussion Rel-18 FS\_NR\_LPWUS

[R2-2312387](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312387.zip) Remaining issues of LP-WUS in idle or inactive mode ZTE Corporation, Sanechips discussion FS\_NR\_LPWUS

[R2-2312450](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312450.zip) Open issues in IDLE/INACTIVE Procedures to support LP-WUR Samsung R&D Institute India discussion Rel-18

[R2-2312640](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312640.zip) Remaining issues on LP-WUS in RRC\_IDLE/INACTIVE state Huawei, HiSilicon discussion Rel-18 FS\_NR\_LPWUS

[R2-2312737](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312737.zip) LP-WUS in RRC IDLE and INACTIVE Nokia, Nokia Shanghai Bell discussion Rel-18 FS\_NR\_LPWUS

[R2-2312848](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312848.zip) RAN2 aspects on LP-WUS/WUR in RRC Idle/Inactive mode Sony discussion Rel-18 FS\_NR\_LPWUS

[R2-2313103](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313103.zip) LP-WUS in IDLE or INACTIVE LG Electronics Inc. discussion Rel-18 FS\_NR\_LPWUS

[R2-2313230](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313230.zip) LP-WUS/WUR for RRC Idle and Inactive Ericsson discussion Rel-18 FS\_NR\_LPWUS

[R2-2313274](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313274.zip) Further considerations on LP-WUS in RRC\_IDLE&INACTIVE state CATT discussion Rel-18 FS\_NR\_LPWUS

### 7.22.3 Connected Mode

[R2-2311917](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311917.zip) Discussion on LP-WUS WUR in RRC\_Connected vivo discussion Rel-18 FS\_NR\_LPWUS

[R2-2311926](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311926.zip) LP-WUS in RRC Connected Mode Lenovo discussion FS\_NR\_LPWUS

[R2-2311961](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311961.zip) Discussion on LP-WUS in RRC Connected OPPO discussion Rel-18 FS\_NR\_LPWUS

[R2-2311982](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311982.zip) Discussing on LP-WUS monitoring for RRC\_Connected Xiaomi Communications discussion

[R2-2312075](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312075.zip) Discussion on LPWUS in RRC\_CONNECTED NEC discussion FS\_NR\_LPWUS

[R2-2312388](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312388.zip) Remaining issues of LP-WUS in connected mode ZTE Corporation, Sanechips discussion FS\_NR\_LPWUS

[R2-2312449](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312449.zip) Discussion on LP-WUS in connected mode Samsung R&D Institute India discussion Rel-18

[R2-2312641](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312641.zip) Further considerations on LP-WUS in RRC\_CONNECTED Huawei, HiSilicon discussion Rel-18 FS\_NR\_LPWUS

[R2-2312847](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312847.zip) Considerations on LP-WUS/WUR in RRC connected mode Sony discussion FS\_NR\_LPWUS

[R2-2313127](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313127.zip) On LP-WUS in RRC\_CONNECTED Nokia, Nokia Shanghai Bell discussion FS\_NR\_LPWUS

[R2-2313231](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313231.zip) LP-WUS/WUR for RRC Connected Ericsson discussion Rel-18 FS\_NR\_LPWUS

## 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: 0.5 TU

Tdoc Limitation: 1 tdoc

### 7.23.1 Organizational

Incoming LSs, Rapporteur input etc.

Expected inputs to next meeting, running CRs for the following: 38.300 [Nokia], 38.331 [Ericsson],

### *Including outcome of [POST123bis][012][URLLC] 38.331 Running CR (Ericsson)*

[R2-2311735](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311735.zip) LS on timing resiliency (R3-235941; contact: Nokia) RAN3 LS in Rel-18 TRS\_URLLC-NR To:RAN2, SA2, CT4

=> Noted

[R2-2312228](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312228.zip) Introduction of Timing Resiliency and URLLC enhancements Nokia (Rapporteur), Nokia Shanghai Bell CR Rel-18 38.300 17.6.0 0730 - B TRS\_URLLC-NR-Core

=> Revised in R2-2313866

[R2-2313866](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312228.zip) Introduction of Timing Resiliency and URLLC enhancements Nokia (Rapporteur), Nokia Shanghai Bell CR Rel-18 38.300 17.6.0 0730 1 B TRS\_URLLC-NR-Core

=> The CR is agreed

[R2-2312550](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312550.zip) Introduction of URLLC and Timing Resiliency Ericsson CR Rel-18 38.331 17.6.0 4258 2 B TRS\_URLLC-NR-Core [R2-2310785](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310785.zip)

=> The CR is endorsed and it will be further updated post meeting with RAN2#124 agreements

* [AT124][018][URLLC] 38.331 (Ericsson)

Intended outcome: Agreed to 38.331

Deadline: Friday (approve by email)

[R2-2312557](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312557.zip) CP Open issues for URLLC TSS Ericsson (Rapporteur) discussion Rel-18 38.331 TRS\_URLLC-NR-Core

*Proposal 1: RAN2 to discuss and decide if the UE should always check for changed gNB Identity (calculated from gNB-ID-Length in SIB1) at the time of receiving eventID in SIB9.*

- Ericsson thinks we should update procedure that gNB ID is updated.

=> Go with rapporteur recommendation

*Proposal 2: eventID is optionally present in DLInformationTransfer (no change).*

**-** Nokia thinks that it is not optionally present, it should always be present if timing information is there.

**-** Vivo thinks it is ok to leave it up to network implementation and leave it optional.

**-** Qualcomm doesn’t think it is optional and it would be simpler for the UE implantation.

**-** Huawei thinks its optional and up to nw implementation.

**-** Samsung indicates that we agreed to include it in dedicated signaling to avoid ambiguity, so it should be mandatory.

**-** ZTE agrees and it should be conditially mandatory if clock info is there

**-** Ericsson is fine with this

*Proposal 3: gNB-ID-Length is not present in DLInformationTransfer (no change).*

*Proposal 4: Rename eventID to eventIDtss or similar.*

*Proposal 5: Replace the mandatory condition in field description with a “-- Cond eventID” notation.*

=> Noted

**Agreements:**

=> timing resiliency and URLLC WI is considered complete from RAN2 point of view

### 7.23.2 General

Remaining stage 3 details.

[R2-2312229](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312229.zip) Remaining issues on timing resiliency and URLLC Nokia, Nokia Shanghai Bell discussion Rel-18 TRS\_URLLC-NR-Core

[R2-2311786](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311786.zip) Remaining issues of timing synchronization status and reporting Xiaomi discussion Rel-18 TRS\_URLLC-NR-Core

[R2-2313034](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313034.zip) On checking eventID and gNB ID Ericsson discussion Rel-18 TRS\_URLLC-NR-Core

[R2-2311811](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311811.zip) Remaining Issues for Timing Synchoronization Status and Reporting vivo discussion Rel-18 TRS\_URLLC-NR-Core

*Proposal 3: The AS layer of UE notifies the NAS layer when moving into a TRS-disabled gNB, i.e., upon receiving SIB9 without EventID. FFS on the exact information.*

- Huawei thinks that this is typical UE behavior. Qualcomm agrees and this is not useful information in the NAS. Samsung thinks that without indication NAS layer has no idea. Nokia doesn’t think we need to inform NAS.

- Apple thinks that the NAS layer needs to be informed as the NAS needs to trigger it. Ericsson is not sure what the NAS would do. Apple explains that there are procedures in NAS on initiation and conditions.

- Samsung thinks that the application needs to be information by the NAS. Qualcomm thinks that the NAS only care if the clock is there or not and there is no procedure like that.

*Proposal 4: UE flushes the VarEventID and VarGnbID upon receiving SIB9 without EventID.*

- Qualcomm thinks this is technically incorrect as you are supposed to keep the clock information of the old gNB if there is no info in the next gNB.

- Samsung thinks that the UE should flush even in the same gNB

- Ericsson and Nokia think it is a corner case

**Agreements**

1. *eventID is conditationally mandatory in DLInformationTransfer*
2. gNB-ID-Length is not present in DLInformationTransfer (no change). The UE shall store or replace the stored gNB ID (*storedVarGnbID*) also when *DLInformationTransfer* with *clockQualityDetailsLevel* and *eventID* is received to avoid unnecessary RRC connection (re-)establishment after inter-gNB handover.
3. Rename eventID to eventID-Tss
4. Replace the mandatory condition in field description with a “-- Cond eventID”
5. UE variable storedGnbID should be updated when storedEventID is different from eventID received from SIB9.
6. UE does not flush the VarEventID and VarGnbID upon receiving SIB9 without EventID (no spec impact).
7. For URLLC, the BAT reporting capability shouldn’t be linked to XR capabilities (e.g. to PDU sets). FFS to check with XR specs that the functionality of BAT reporting works independently

[R2-2311842](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311842.zip) Discussion on the design of clock quality metrics Huawei, HiSilicon discussion Rel-18 TRS\_URLLC-NR-Core

=> We will take the RAN3 parameters

[R2-2311951](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311951.zip) Discussion on the URLLC related UE capability CATT discussion Rel-18 TRS\_URLLC-NR-Core

*Proposal: Introduce a UE AS capability/feature without indicating to the network for the clock quality information mechanism, using either of the manners below:*

*- Optional features without UE radio access capability parameters;*

*- Conditionally mandatory features without UE radio access capability parameters.*

- Vivo thinks that we already agreed last meeting that we don’t need an AS capability

=> Noted

[R2-2312333](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312333.zip) Remaining open issues on NR Timing Resiliency Apple discussion Rel-18 TRS\_URLLC-NR-Core

*Proposal 1: RAN2 to discuss whether additional AS capabilities are needed for UE specific BAT reporting. Optionally wait for the Rel-18 XR capability discussion. If the issue cannot be resolved in the XR session, then a new AS capability should be defined for reactive RAN feedback.*

- Nokia thinks that we should discuss this in XR and not link the BAT reporting to XR

- Intel indicates that we can consider separating the capability but the functionalities are intertwined with XR.

=> Noted

[R2-2312389](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312389.zip) Remaining issues of acquiring time synchronization status ZTE Corporation, Sanechips discussion FS\_5TRS\_URLLC

[R2-2312957](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312957.zip) Open Issues in Clock Quality Reporting Qualcomm Incorporated discussion Rel-18

[R2-2313325](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313325.zip) Remaining Issues on Time Synchronization Status Update Samsung discussion Rel-18

## 7.24 TEI18

Specific items may be allocated to a breakout session for treatment.

Time budget: 1 TU

### 7.24.0 In Principle Agreed CRs

[R2-2313165](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313165.zip) CR to add SR periodicities for 30 and 120 kHz subcarrier spacing [SR-Periods-30-120-kHz] Ericsson CR Rel-18 38.331 17.6.0 3971 3 C TEI18 [R2-2306770](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2306770.zip)

=> Remove the UE capability part as it is merged in mega CR already and update cover page including title

=> The CR is agreed in R2-2313915 with the change above

[R2-2313166](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313166.zip) CR to add SR periodicities for 30 and 120 kHz subcarrier spacing [SR-Periods-30-120-kHz] Ericsson CR Rel-18 38.306 17.6.0 0891 3 C TEI18 [R2-2306773](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2306773.zip)

=> The CR is not pursued as already captured in mega CR

[R2-2312371](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312371.zip) RedCap CFR for MBS broadcast [RedCapMBS\_Bcast] Qualcomm Incorporated, Ericsson, Verizon, FirstNet, Xiaomi, ZTE CR Rel-18 38.331 17.6.0 4123 1 B NR\_MBS-Core, NR\_redcap-Core, TEI18 [R2-2305955](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2305955.zip)

- Huawei indicates that there is a discussion ongoing in MBS session

=> The CR is agreed and if needed can be revised

**To be treated in breakout sessions**

[R2-2312107](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312107.zip) Positioning restrictions for UE-to-network remote UEs [PosL2RemoteUE] MediaTek Inc., CATT, Huawei, HiSilicon, Qualcomm Incorporated, Xiaomi, Intel Corporation, vivo, Ericsson CR Rel-18 38.305 17.6.0 0134 2 C TEI18 [R2-2305852](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2305852.zip)

[R2-2312108](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312108.zip) Capabilities of L2 UE-to-network relay UEs for positioning [PosL2RemoteUE] MediaTek Inc., CATT, Huawei, HiSilicon, Qualcomm Incorporated, Xiaomi, Intel Corporation, vivo, Ericsson CR Rel-18 38.306 17.6.0 0907 3 C TEI18 [R2-2306828](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2306828.zip)

[R2-2312109](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312109.zip) Support positioning of L2 UE-to-network remote UEs [PosL2RemoteUE] MediaTek Inc., CATT, Huawei, HiSilicon, Qualcomm Incorporated, Xiaomi, Intel Corporation, vivo, Ericsson, Samsung CR Rel-18 37.355 17.6.0 0444 2 C TEI18 [R2-2305854](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2305854.zip)

[R2-2312110](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312110.zip) Downlink positioning support and posSIB request for L2 UE-to-network remote UE [PosL2RemoteUE] MediaTek Inc., CATT, Huawei, HiSilicon, Qualcomm Incorporated, Xiaomi, Intel Corporation, vivo, Ericsson, Samsung, ZTE CR Rel-18 38.331 17.6.0 4066 5 C TEI18 [R2-2306839](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2306839.zip)

[R2-2312808](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312808.zip) Support of Local Cartesian Coordinates in LPP [PosLocalCoords] Qualcomm Incorporated CR Rel-18 37.355 17.6.0 0447 1 C TEI18 [R2-2305891](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2305891.zip)

[R2-2313046](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313046.zip) SSR Satellite PCV Residuals [Rel18PCV] Swift Navigation, Ericsson CR Rel-18 38.331 17.6.0 4296 2 C TEI18 [R2-2309324](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2309324.zip)

[R2-2313061](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313061.zip) SSR Satellite PCV Residuals [Rel18PCV] Swift Navigation, Ericsson CR Rel-18 37.355 17.6.0 0465 2 C TEI18 [R2-2309322](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2309322.zip)

[R2-2313062](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313062.zip) SSR Satellite PCV Residuals [Rel18PCV] Swift Navigation, Ericsson CR Rel-18 36.331 17.6.0 4955 2 C TEI18 [R2-2309323](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2309323.zip)

[R2-2313063](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313063.zip) SSR Satellite PCV Residuals [Rel18PCV] Swift Navigation, Ericsson CR Rel-18 36.305 17.3.0 0118 2 C TEI18 [R2-2309320](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2309320.zip)

[R2-2313065](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313065.zip) SSR Satellite PCV Residuals [Rel18PCV] Swift Navigation, Ericsson CR Rel-18 38.305 17.6.0 0140 2 C TEI18 [R2-2309321](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2309321.zip)

### 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).

Including outcome of [AT123bis][018][CG-SDT TEI18] LS to RAN1 (Ericsson)

[R2-2311726](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311726.zip) Reply LS on Multiple Trace/MDT configurations (R3-235882; contact: Nokia) RAN3 LS in Rel-18 TEI18 To:SA5 Cc:RAN2

=> Noted

Treated in positioning breakout session

[R2-2312446](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312446.zip) Introduction of 1-symbol PRS in 37.355[1symbol\_PRS] ZTE Corporation CR Rel-18 37.355 17.6.0 0437 4 B TEI18 [R2-2308141](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2308141.zip)

[R2-2312447](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312447.zip) Introduction of 1-symbol PRS in 38.331[1symbol\_PRS] ZTE Corporation CR Rel-18 38.331 17.6.0 4014 4 B TEI18 [R2-2308140](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2308140.zip)

[R2-2312596](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312596.zip) SDT signalling optimization for partial context transfer Huawei, HiSilicon, China Telecom, Qualcomm, CATT, Lenovo, Orange, Vodafone, CMCC, China Unicom discussion Rel-18 TEI18

*Proposal 1: RAN2 agrees to introduce a resumeIndication in the RRCRelease message sent to terminate SDT procedure, allowing the UE to initiate the RRC resume procedure immediately after receiving this RRCRelease message.*

*Proposal 2: This functionality is an optional UE capability with signalling.*

*Proposal 3: RAN2 agrees on the CRs for TS 38.331 and for CRs on UE capabilities as provided in [2], [3], [4].*

- Intel thinks that there are there are other scenarios not considered. Intel is asking if we will restrict only to the case where we have on-going SDT traffic

- ZTE asks if the UE performs cell selection after the release and how quickly is the UE required to perform the RRCresume and there may be more delays.

**Agreements**

1 RAN2 agrees to introduce a resumeIndication in the RRCRelease message sent to terminate SDT procedure, allowing the UE to initiate the RRC resume procedure immediately after receiving this RRCRelease message and after performing cell selection. Same UE requirements as receiving paging.

1. This functionality is an optional UE capability with signalling.
2. Send LS to RAN3 after the CR agreable

=> Noted

[R2-2312920](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312920.zip) Draft Reply LS on SDT signalling optimization for partial context transfer Qualcomm Incorporated LS out TEI18 To:RAN3

[R2-2312597](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312597.zip) Introduction of RRCRelease with resume indication for SDT [SDT\_ReleaseEnh] Huawei, HiSilicon, China Telecom, Qualcomm, CATT, Lenovo, Orange, Vodafone, CMCC, China Unicom CR Rel-18 38.331 17.6.0 4435 - B TEI18

[R2-2312598](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312598.zip) UE capability for RRCRelease with resume indication [SDT\_ReleaseEnh] Huawei, HiSilicon, China Telecom, Qualcomm, CATT, Lenovo, Orange, Vodafone, CMCC, China Unicom draftCR Rel-18 38.331 17.6.0 B TEI18

[R2-2312599](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312599.zip) UE capability for RRCRelease with resume indication [SDT\_ReleaseEnh] Huawei, HiSilicon, China Telecom, Qualcomm, CATT, Lenovo, Orange, Vodafone, CMCC, China Unicom draftCR Rel-18 38.306 17.6.0 B TEI18

* [AT124][022][SDT signaling opt] CRs (Huawei)

Intended outcome: Review and agree/endorse CRs and agree to LS after CR is agreed.

Deadline: Nov. 23rd for UE capabilities, 2 weeks for 331 CRs

[R2-2312806](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312806.zip) Network support and clarification of redirection to 3G Vodafone, Orange, Deutsche Telekom, AT&T, Verizon, Huawei, HiSilicon; Nokia, Vivo CR Rel-18 36.331 17.6.0 4970 - B TEI18

=> The CR is agreed

### 7.24.2 TEI proposals by RAN2

Items initiated in RAN2 for NR and LTE.

Tdoc limitation: 1 tdoc, limitation only applicable for non-previously-agreed-to-be-considered TEI proposals.   
proposals that has been agreed or agreed to be considered are not limited by the tdoc limitation.

Including outcome of [Post123bis][403][POS] BT AoA/AoD (Ericsson)

[R2-2312670](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312670.zip) Introducing procedure for measurement sequence for intra-RAT and inter-RAT measurement CMCC, Ericsson, ZTE, KDDI, Samsung CR Rel-18 38.331 17.6.0 4439 - B TEI18

=> The CR is revised in R2-2313907

R2-2313907 Introducing procedure for measurement sequence for intra-RAT and inter-RAT measurement CMCC, Ericsson, ZTE, KDDI, Samsung, CATT CR Rel-18 38.331 17.6.0 4439 1 B TEI18

=> The CR is agreed

[R2-2312671](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312671.zip) Introducing capability for measurement sequence for intra-RAT and inter-RAT measurement CMCC, Ericsson, ZTE, KDDI, Samsung CR Rel-18 38.331 17.6.0 4440 - B TEI18

=> The CR is revised in R2-2313908

R2-2313908 Introducing capability for measurement sequence for intra-RAT and inter-RAT measurement CMCC, Ericsson, ZTE, KDDI, Samsung, CATT CR Rel-18 38.331 17.6.0 4440 1 B TEI18

=> The CR is endorsed and will be merged with mega CR

[R2-2312672](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312672.zip) Introducing capability for measurement sequence for intra-RAT and inter-RAT measurement CMCC, Ericsson, ZTE, KDDI, Samsung CR Rel-18 38.306 17.6.0 0992 - B TEI18

=> The CR is revised in R2-2313909

R2-2313909 Introducing capability for measurement sequence for intra-RAT and inter-RAT measurement CMCC, Ericsson, ZTE, KDDI, Samsung, CATT CR Rel-18 38.306 17.6.0 0992 1 B TEI18

=> The CR is endorsed and will be merged with mega CR

[R2-2311843](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311843.zip) Enhancing SCell A2 event reporting [TEI] KDDI Corporation, Ericsson, NTT Docomo, BT Plc., AT&T, Turkcell, Qualcomm Incorporated, ZTE Corporation CR Rel-18 38.331 17.6.0 4375 1 F TEI18 [R2-2311106](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311106.zip)

=> Change the “shall” to “should” in the Note

=> The CR is agreed in R2-1313918 with the change above

**AoA/AoD (treated in positioning)**

[R2-2312943](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312943.zip) [Post123bis][403][POS] BT AoA/AoD (Ericsson) Ericsson report Rel-18

[R2-2312944](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312944.zip) Bluetooth AoA/AoD support [BT-AoA-AoD] Ericsson CR Rel-18 36.305 17.3.0 0119 - B TEI18

[R2-2312945](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312945.zip) Bluetooth AoA/AoD support [BT-AoA-AoD] Ericsson CR Rel-18 38.305 17.6.0 0153 - B TEI18

[R2-2312946](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312946.zip) Bluetooth AoA/AoD support [BT-AoA-AoD] Ericsson CR Rel-18 37.355 17.6.0 0480 - B TEI18

**Cell individual offset config**

[R2-2313442](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313442.zip) Configuration of cell individual offset in ReportConfig [CIO\_in\_ReportConfig] NTT Docomo, Ericsson, KDDI corporation, BT Plc., AT&T, Orange, Turkcell, Deutsche Telekom CR Rel-18 38.331 17.6.0 4492 - F TEI18

=> ZTE thinks that it is too complicated to use the remove and add configuration. It would be simpler to provide the list of PCell and as long as the UE receives it will replace old values. Ericsson thinks that we have to link which cell is linked to CIO

=> Update to include one list for PCell and Scell

=> The CR is revised in R2-2313919 and will be reviewed by email

* [AT124][023][Cell Ind offset] Agree to RRC CR (Ericsson)

Intended outcome: Agree to CR

Deadline: Nov. 17th, to be agreed by email

[R2-2313447](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313447.zip) Capability for cell individual offset in ReportConfig [CIO\_in\_ReportConfig] NTT Docomo, Ericsson, KDDI corporation, BT Plc., AT&T, Orange, Turkcell, Deutsche Telekom CR Rel-18 38.306 17.6.0 1008 - F TEI18

=> add table from TR 38.822

=> The CR is updated in R2-2313920 and endorsed with changes above and will be merged with mega CR

[R2-2313449](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313449.zip) Capability for cell individual offset in ReportConfig [CIO\_in\_ReportConfig] NTT Docomo, Ericsson, KDDI corporation, BT Plc., AT&T, Orange, Turkcell, Deutsche Telekom CR Rel-18 38.331 17.6.0 4493 - F TEI18

=> The CR is endorsed and will be merged in mega CR

**Delay measurements upon MO updates**

[R2-2313149](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313149.zip) Introduction of enhancements of delay measurements upon MO updates Huawei, HiSilicon CR Rel-18 38.331 17.6.0 4469 - B TEI18

- ZTE thinks that the CR is incorrect, the if condition means that the if the UE doesn’t support the feature cannot reset the MO.

- Nokia asks if we should put SON/MDT as a work item code. Intel thikns that the TEI identifier can have SON/MDT in the name.

=> add TEI identifier

=> the CR is revised in R2-2313921 and will be reviewed over email

[R2-2313150](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313150.zip) Introduction of UE capability for delay measurement enhancements Huawei, HiSilicon CR Rel-18 38.306 17.6.0 0997 - B TEI18

- Nokia asks why do we need a capability

=> add table from TR 38.822

=> add TEI identifier

=> The CR is revised in R2-2313922 and reviewed by email

* [AT124][024][MO Updates] Agree to CR (Huawei)

Intended outcome: agree to 38.331 and 38.306

Deadline: Friday (to be approved by email)

**SFN-DFN offset (positioning breakout session)**

[R2-2312444](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312444.zip) Clarification on remote UE behaviour when receiving SFN-DFN offset for positioning ZTE Corporation CR Rel-18 38.331 17.6.0 4431 - B TEI18

**Extended CG-SDT periodicities**

[R2-2312092](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312092.zip) Paging Monitoring for extended CG-SDT periodicities ZTE Corporation, Sanechips CR Rel-18 38.331 17.6.0 4411 - C TEI18

=> Revised in R2-2313884

[R2-2313884](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312092.zip) Paging Monitoring for extended CG-SDT periodicities ZTE Corporation, Sanechips CR Rel-18 38.331 17.6.0 4411 1 C TEI18

=> The CR is agreable and will be merged in 3891

[R2-2312509](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312509.zip) Discussion on the remaining issues for long CG-SDT periodicity NEC Corporation. discussion Rel-18 TEI18

[R2-2312600](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312600.zip) Remaining issues of extended CG-SDT periodicities Huawei, HiSilicon discussion Rel-18 TEI18

=> Noted

[R2-2313173](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313173.zip) Introduction of longer periodicities for CG-SDT [CG-SDT-Enh] Ericsson, Intel Corporation, ZTE Corporation, Sanechips CR Rel-18 38.321 17.6.0 1719 - B TEI18

=> Revised in R2-2313890

[R2-2313890](file:///C:\\Users\\panidx\\OneDrive%20-%20InterDigital%20Communications,%20Inc\\Documents\\3GPP%20RAN\\TSGR2_124\\Docs\\R2-2313173.zip) Introduction of longer periodicities for CG-SDT [CG-SDT-Enh] Ericsson, Intel Corporation, ZTE Corporation, Sanechips CR Rel-18 38.321 17.6.0 1719 1 B TEI18

=> The CR is revised in R2-2313925 and will be reviewed over email

[R2-2313179](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313179.zip) Introduction of longer periodicities for CG-SDT [CG-SDT-Enh] Ericsson, Intel Corporation, ZTE Corporation, Sanechips CR Rel-18 38.331 17.6.0 4471 - B TEI18

=> Revised in R2-2313891

[R2-2313891](file:///C:\\Users\\panidx\\OneDrive%20-%20InterDigital%20Communications,%20Inc\\Documents\\3GPP%20RAN\\TSGR2_124\\Docs\\R2-2313179.zip) Introduction of longer periodicities for CG-SDT [CG-SDT-Enh] Ericsson, Intel Corporation, ZTE Corporation, Sanechips CR Rel-18 38.331 17.6.0 4471 1 B TEI18

=> The CR is revised in R2-2313924 and will be reviewed over email

[R2-2313180](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313180.zip) UE capabilities for Rel-18 Enhancements to CG-SDT [CG-SDT-Enh] Ericsson, Intel Corporation, ZTE Corporation, Sanechips CR Rel-18 38.331 17.6.0 4472 - B TEI18

=> Add the TEI identifier

=> The CR is endorsed in R2-2313926 with the change above and will be merged with mega CR

[R2-2313182](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313182.zip) UE capabilities for Rel-18 Enhancements to CG-SDT [CG-SDT-Enh] Ericsson, Intel Corporation, ZTE Corporation, Sanechips CR Rel-18 38.306 17.6.0 0999 - B TEI18

=> The CR is endorsed and will be merged with mega CR

[R2-2313432](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313432.zip) Addition of long CG-SDT periodicities in Stage-2 Nokia, Nokia Shanghai Bell CR Rel-18 38.300 17.6.0 0743 - B TEI18

- Huawei thinks it is not clear whether we initiate RACH. LG agrees that the current text is incomplete. Nokia thinks that part is clear in stage 3.

- Intel thinks that if we are doing a stage 2 then why don’t we also clarify the other two features of CG-SDT

=> add identifier and create a more general identifier for all three CRs

=> the CR is revised in R2-2313927 and reviewed in email discussion

* [POST124][025][CG-SDT] Agree to CRs (Ericsson)

Intended outcome: Agreed to 38.331, 38.300 and 38.321

Deadline: 2 weeks deadline

**Reselection to GERAN/UTRAN**

[R2-2312811](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312811.zip) Protection against improper reselection to GERAN/UTRAN Vodafone, Orange, Qualcomm, AT&T, Verizon, Nokia, Ericsson,Vivo, Deutsche Telekom CR Rel-18 36.304 17.4.0 0866 - B TEI18

=> add TEI identifier

=> The CR is agreed in R2-2313929 with the change above

[R2-2312835](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312835.zip) Indroduction of Protection against improper reselection to GERAN/UTRAN Vodafone, Nokia, Deutsche Telekom CR Rel-18 36.306 17.4.0 1874 - B TEI18

=> add TEI identifier

=> The CR is agreed in R2-2313928 with the change above

[R2-2312856](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312856.zip) Protection against improper reselection to GERAN/UTRAN Vodafone, Ericsson CR Rel-18 36.331 17.6.0 4971 - B TEI18

=> Add 4971 in the table and rev. 1

=> Add identifier

=> harmonize the titles across all three specs

=> The CR is agreed in R2-2313930 with the change above

[R2-2312866](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312866.zip) Protection against improper reselection to GERAN/UTRAN Vodafone discussion Rel-18

=> noted

[R2-2313275](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313275.zip) Discussion on redirection to GERAN vivo discussion

- Ericsson and Nokia think that we should have same behavoir for 1> if the RRCEarlyDataComplete message includes idleModeMobilityControlInfo:

=> Add magic sentence

=> the CR is postponed

[R2-2313276](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313276.zip) Correction on redirection to GERAN vivo CR Rel-17 36.331 17.6.0 4976 - F TEI18

**Flightpathinfo**

[R2-2311871](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311871.zip) Correction to flightPathInfoAvailable when connected to 5GC Qualcomm Incorporated CR Rel-18 36.331 17.6.0 4959 1 F LTE\_Aerial-Core, TEI18 [R2-2310161](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310161.zip) Revised

[R2-2313098](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313098.zip) Correction to flightPathInfoAvailable when connected to 5GC Qualcomm Incorporated, Ericsson CR Rel-18 36.331 17.6.0 4959 2 F LTE\_Aerial-Core, TEI18 [R2-2311871](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311871.zip)

=> the CR is agreed

**SDT**

[R2-2312849](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312849.zip) Beam failure recovery for SDT Sony, Nokia, Nokia Shanghai Bell, Huawei, HiSilicon discussion Rel-18 TEI18

*Proposal 1: For beam failure recovery in Rel-18 SDT, during ongoing RA-SDT procedure for MO-SDT or MT-SDT (performed over RACH) if the RSRP value of the current SSB (i.e., SSB selected in the last random access procedure during the ongoing SDT procedure) is less than a pre-configured threshold, a UE triggers RACH procedure similar to CG-SDT procedure in Rel-17 SDT.*

*Proposal 2: Agree the accompanying Rel-18 CR [5].*

- ZTE is concerned that this approach would cause excessive RA, perhaps adding some time to trigger could help this issue. Sony indicates that Samsung proposal would reduce the signaling of RA signaling or we can add a note to say that it is up to UE implementation to reduce frequency. ZTE explains that the issue is with the current beam. Ericsson shares the concern with ZTE.

- Mediatek doesn’t think the CR is needed as we would have a situation that would cause ambiguity

- LG thinks that CG-SDT the resource are pre-configured but for RA-SDT grant is given by dynamic grant and quality is guaranteed by the network.

=> We will adopt a solution to deal with the beam failure recover in Rel-18, but wait for next meeting to determine how we need to deal with frequent RA

[R2-2312850](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312850.zip) Introduction of beam failure recovery for RA-SDT in Rel-18 Sony, Nokia, Nokia Shanghai Bell, Huawei, HiSilicon CR Rel-18 38.321 17.6.0 1712 - B TEI18

[R2-2312093](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312093.zip) Handling SSB failure during SDT Procedure Samsung Electronics Co., Ltd, Sony discussion Rel-18 TEI18

Proposal 1: if SSB selected during the last random access procedure during the SDT procedure become unsuitable (i.e. SS-RSRP of the SSB < configured threshold) AND there is at least one SSB whose SS-RSRP is >= configured threshold: UE initiates random access procedure.

[R2-2313433](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313433.zip) Selection between CG-SDT and RACH based SDT Nokia, Nokia Shanghai Bell discussion Rel-18 TEI18

[R2-2313534](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313534.zip) RRC configuration synchronisation for the RRC re-establishment procedure Huawei, HiSilicon discussion Rel-18 TEI18

*Proposal 1: at every RRC reconfiguration, the UE stores its RRC configuration before the RRC reconfiguration until it has received the L2 ACK for the RRC reconfiguration complete message. In the RRC reestablishment message, the network can include the RRC-TransactionIdentifier of the last RRC reconfiguration message taken into account by the network to determine the UE, so that the UE knows whether to use the stored or the current RRC UE configuration when processing the first RRC reconfiguration after RRC re-establishment.*

*Proposal 2: introduce a new UE capability to allow the network to know whether the RRC re-establishment message with new the indication can be sent to the UE.*

- Qualcomm thinks that this is a legacy issue and we should explore implementation specific solutions and use some of the existing tools. Ericsson agrees and a full configuration would solve the issue.

- ZTE agrees that this is legacy and we even have the problem in LTE. We can differentiate by the cause value, if set to reconfiguration the old config applies, but if set to others. The proposal doesn’t work as this may trigger a re-establishment and the new gNB doesn’t know the transcation ID. Huawei thinks that network can provide the transaction ID.

- Vodafone asks if it impacts RAN3. Huawei indicates that current proposed solution no, but there may be some impacts.

=> Noted

**Positioning (to be treated in positioning offline)**

[R2-2312129](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312129.zip) Further corrections to RRC CR on Positioning for remote UEs Lenovo discussion Rel-18 TEI18

**MUSIM (breakout session)**

[R2-2312195](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312195.zip) MUSIM paging cause forwarding vivo, Samsung CR Rel-18 38.306 17.6.0 0978 - B LTE\_NR\_MUSIM-Core, NR\_SL\_relay-Core

=> Revised in R2-2313861

[R2-2313861](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312195.zip) MUSIM paging cause forwarding [MUSIMpagingCause] vivo, Samsung CR Rel-18 38.306 17.6.0 0978 1 B LTE\_NR\_MUSIM-Core, NR\_SL\_relay-Core

[R2-2312196](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312196.zip) MUSIM paging cause forwarding vivo, Samsung CR Rel-18 38.331 17.6.0 4414 - B LTE\_NR\_MUSIM-Core, NR\_SL\_relay-Core

=> Revised in R2-2313862

[R2-2313862](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312196.zip) MUSIM paging cause forwarding [MUSIMpagingCause] vivo, Samsung CR Rel-18 38.331 17.6.0 4414 1 B LTE\_NR\_MUSIM-Core, NR\_SL\_relay-Core

**SON/MDT (to be treated in REdCap session)**

[R2-2312060](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312060.zip) Discussion on reducing SON/MDT memory requirements for eRedCap UEs CATT discussion TEI18

**PosSIB relaying (to be treated in breakout)**

[R2-2312936](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312936.zip) Forwarding on posSIBs relaying to remote UE [PosL2RemoteUE] Ericsson CR Rel-18 38.305 17.6.0 0151 - B TEI18

**PTM (To be treated in MBS breakout session)**

[R2-2312610](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312610.zip) PTM retransmission reception for multicast DRX with HARQ feedback disabled [PTM\_ReTx\_Mcast\_HARQ\_Disb] Nokia Corporation draftCR Rel-18 38.306 17.6.0 NR\_MBS-Core Revised

[R2-2311856](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311856.zip) Discussion on PTM retransmission reception by UEs without HARQ feedback CATT discussion Rel-18 NR\_MBS\_enh-Core

[R2-2313157](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313157.zip) Discussion on PTM retransmission reception with HARQ feedback disabled LG Electronics Inc. discussion Rel-18 NR\_MBS-Core, TEI18

[R2-2313216](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313216.zip) Discussion on PTM retransmission reception with HARQ feedback disabled ASUSTeK discussion Rel-18 TEI18

[R2-2313381](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313381.zip) Discussion on starting time for PTM retransmission by UEs with HARQ disabled Huawei, CBN, HiSilicon discussion Rel-18 TEI18, NR\_MBS\_enh-Core

[R2-2313382](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313382.zip) Correction on starting time for PTM retransmission by UEs with HARQ disabled Huawei, CBN, HiSilicon CR Rel-18 38.321 17.6.0 1724 - B TEI18, NR\_MBS\_enh-Core

[R2-2313491](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313491.zip) PTM retransmission reception for multicast DRX with HARQ feedback disabled [PTM\_ReTx\_Mcast\_HARQ\_Disb] Nokia Corporation, AT&T, Qualcomm, Samsung, Verizon, Ericsson draftCR Rel-18 38.331 17.6.0 B NR\_MBS-Core [R2-2312593](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312593.zip)

[R2-2313507](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313507.zip) PTM retransmission reception for multicast DRX with HARQ feedback disabled- UE capability bit [PTM\_ReTx\_Mcast\_HARQ\_Disb] Nokia Corporation, AT&T, Qualcomm, Samsung, Verizon, Ericsson draftCR Rel-18 38.331 17.6.0 B NR\_MBS-Core [R2-2312594](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312594.zip)

[R2-2313517](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313517.zip) PTM retransmission reception for multicast DRX with HARQ feedback disabled [PTM\_ReTx\_Mcast\_HARQ\_Disb] Nokia Corporation, AT&T, Qualcomm, Samsung, Verizon, Ericsson draftCR Rel-18 38.321 17.6.0 B NR\_MBS-Core [R2-2312595](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312595.zip)

[R2-2313519](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313519.zip) PTM retransmission reception for multicast DRX with HARQ feedback disabled [PTM\_ReTx\_Mcast\_HARQ\_Disb] Nokia Corporation, AT&T, Qualcomm, Samsung, Verizon, Ericsson draftCR Rel-18 38.306 17.6.0 B NR\_MBS-Core [R2-2312610](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312610.zip)

[R2-2312593](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312593.zip) PTM retransmission reception for multicast DRX with HARQ feedback disabled [PTM\_ReTx\_Mcast\_HARQ\_Disb] Nokia Corporation draftCR Rel-18 38.331 17.6.0 B NR\_MBS-Core Revised

[R2-2312594](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312594.zip) PTM retransmission reception for multicast DRX with HARQ feedback disabled- UE capability bit [PTM\_ReTx\_Mcast\_HARQ\_Disb] Nokia Corporation draftCR Rel-18 38.331 17.6.0 B NR\_MBS-Core Revised

[R2-2312595](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312595.zip) PTM retransmission reception for multicast DRX with HARQ feedback disabled [PTM\_ReTx\_Mcast\_HARQ\_Disb] Nokia Corporation draftCR Rel-18 38.321 17.6.0 B NR\_MBS-Core Revised

**MBS (to be treated in MBS breakout session)**

[R2-2311809](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311809.zip) [draft] reply LS to SA2 on RedCap UE MBS Broadcast reception ZTE, Sanechips discussion Rel-18 TEI18

[R2-2311810](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311810.zip) Discussion about SA2 LS on RedCap UE MBS Broadcast reception ZTE, Sanechips, CBN discussion Rel-18 TEI18

[R2-2313233](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313233.zip) On SA2 questions on RedCap UE MBS Broadcast reception Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_MBS-Core, TEI18

[R2-2313238](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313238.zip) Reply LS on RedCap UE MBS Broadcast reception Nokia, Nokia Shanghai Bell LS out Rel-18 NR\_MBS-Core, TEI18 To:SA2,RAN3

[R2-2313377](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313377.zip) Clarification on MBS search space configuration for Redcap Huawei, CBN, HiSilicon discussion Rel-18 TEI18, NR\_MBS\_enh-Core, NR\_redcap\_enh-Core

[R2-2313378](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313378.zip) Correction on MBS search space configuration for Redcap Huawei, CBN, HiSilicon CR Rel-18 38.331 17.6.0 4491 - B TEI18, NR\_MBS\_enh-Core, NR\_redcap\_enh-Core

[R2-2313379](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313379.zip) Discussion on the LS from SA2 on RedCap UE MBS Broadcast reception Huawei, CBN, HiSilicon discussion Rel-18 TEI18, NR\_MBS\_enh-Core, NR\_redcap\_enh-Core

[R2-2313380](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313380.zip) Reply LS on RedCap UE MBS Broadcast reception Huawei, HiSilicon LS out Rel-18 TEI18, NR\_MBS\_enh-Core, NR\_redcap\_enh-Core To:SA2 Cc:RAN3

## 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.

Time budget: 2 TU

Tdoc Limitation: -

### 7.25.0 In Principle Agreed CRs

[R2-2312770](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312770.zip) Introduction of R18 DSS in 38.306 ZTE Corporation, Ericsson CR Rel-18 38.306 17.6.0 0993 - B NR\_DSS\_enh

=> The CR is endorsed and will be merged with mega CR

[R2-2312995](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312995.zip) Introduction of R18 DSS Ericsson, ZTE Corporation CR Rel-18 38.331 17.6.0 4360 3 B NR\_DSS\_enh-Core [R2-2312993](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312993.zip)

=> The CR is agreed

### 7.25.1 RAN4 led items

#### 7.25.1.1 Lower MSD capability

[R2-2311736](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311736.zip) LS on lower MSD capability (R4-2315238; contact: Huawei) RAN4 LS in Rel-18 NR\_ENDC\_RF\_FR1\_enh2 To:RAN2

=> Noted

[R2-2313469](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313469.zip) Discussion on lower MSD capability Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_RF\_FR1\_enh2

**Agreements:**

1. For each victim band, the lower MSD capability is reported as follows:

- For each victim band, it can list multiples of 1 and/or 2 aggressor bands. The aggressor band is defined using the FreqBandIndicatorNR; LTE frequency band should also be included.

- Within each entry of the list, other than the aggressor band(s), the MSD threshold can be indicated for each possible {MSD type, Power class} associated with the victim band and aggressor band(s).

o The values of the MSD type are defined as {harmonic, harmonic mixing, cross band isolation, IMD2/3/4/5}

o The values of the Power Class are defined as {pc1dot5, pc2, pc3}

o The values of the MSD Class are defined as {classI, classII, classIII, classIV, classV, classVI, classVII, classVIII}

2 An “ALL” MSD type is defined to indicate the reported MSD threshold for all MSD types defined in Rel-18, applicable to the associated victim band/the aggressor bands.

3 If the NW requests for certain power class(es), the lower MSD capability for the power class with highest tx power as well as the requested power class(es) should be reported if supported; otherwise, the lower MSD capability for the highest power class of corresponding band combination including victim band and aggressor band(s) is reported. (can be updated further pending RAN4 discussion)

4 Include spare values in MSD type field design.

[R2-2312971](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312971.zip) Support of lower MSD capability Ericsson discussion

*Proposal 3 Send LS to RAN4 to inform that future defined MSD orders (if any) will not be supported by the UE and will have to be explicitly defined by RAN2.*

* [POST124][010][MSD capability] Capability CRs (Huawei)

Intended outcome: agree to 38.331 and 38.306 CR

Deadline: Nov. 23rd

[R2-2313353](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313353.zip) Discussion on lower MSD signalling vivo discussion Rel-18 NR\_ENDC\_RF\_FR1\_enh2

[R2-2313391](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313391.zip) Remaining issue of the UE capability signaling for lower MSD Xiaomi discussion Rel-18 NR\_ENDC\_RF\_FR1\_enh2-Core

[R2-2313456](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313456.zip) Further capability reduction for lower MSD MediaTek Inc. discussion Rel-18 NR\_ENDC\_RF\_FR1\_enh2

- CATT thinks this is an optimization with no agreement in RAN4

[R2-2313470](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313470.zip) Introduction of lower MSD capability Huawei, HiSilicon CR Rel-18 38.331 17.6.0 4292 2 B NR\_ENDC\_RF\_FR1\_enh2 [R2-2310735](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310735.zip)

[R2-2313471](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313471.zip) Introduction of lower MSD capability Huawei, HiSilicon CR Rel-18 38.306 17.6.0 0950 2 B NR\_ENDC\_RF\_FR1\_enh2 [R2-2310736](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310736.zip)

#### 7.25.1.2 Intra-band non-collocated NR-CA. EN-DC

[R2-2313573](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313573.zip) Remaining issues for intra-band non-collocated NR-CA. EN-DC KDDI Corporation discussion Rel-18 NonCol\_intraB\_ENDC\_NR\_CA-Core

Default type for NR-CA

*Proposal2: RAN2 agree to adopt default type2 for nonCollocatedTypeNR-CA-r18.*

- Apple thinks that typical deployment should be collocated and with this assumption we should allow the UE to follow type1 as default. KDDI indicates that a type 2 UE always supports type 1 requirement so there is no issue. Huawei supports KDDI’s proposal and it is consistent with ENDC. Ericsson thinks from ASN1 it is better to support type 2.

-

MTTD RAN4 spec reference for Type1

Proposal3: RAN2 agree to remove Editor’s note for MTTD RAN4 spec reference for Type1.

**Agreements:**

1. For UEs supporting new capability, adopt default type2 for nonCollocatedTypeMRDC-r18.
2. For UEs supporting new capability, adopt default type2 for nonCollocatedTypeNR-CA-r18
3. RAN2 agree to remove Editor’s note for MTTD RAN4 spec reference for Type1
4. the new RRC signaling would not be applied to the FDD-FDD inter-band EN-DC with overlapping or partially overlapping bands.

[R2-2313336](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313336.zip) Further Consideration on the New BS Signaling ZTE Corporation, Sanechips discussion Rel-18 NonCol\_intraB\_ENDC\_NR\_CA-Core

=> Noted

[R2-2313575](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313575.zip) Left issues on interBandMRDC-WithOverlapDL-Bands-r16 OPPO discussion Rel-17 TEI17

=> Noted

* [AT124][011][intra-band] 38.331 and 38.306(KDDI)

Intended outcome: endorse CRs and LS to RAN4

Deadline: Nov. 17 (to be approved by email)

[R2-2311850](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311850.zip) Signaling support for intra-band non-collocated NR-CA, EN-DC KDDI Corporation, Apple, Ericsson, Huawei, HiSilicon, Samsung CR Rel-18 38.306 17.6.0 0972 - B NonCol\_intraB\_ENDC\_NR\_CA-Core

=> Revised in R2-2313887

R2-2313887 Signaling support for intra-band non-collocated NR-CA, EN-DC KDDI Corporation, Apple, Ericsson, Huawei, HiSilicon, Samsung CR Rel-18 38.306 17.6.0 0972 1 B NonCol\_intraB\_ENDC\_NR\_CA-Core

[R2-2311851](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311851.zip) Signaling support for intra-band non-collocated NR-CA, EN-DC KDDI Corporation, Apple, Ericsson, Huawei, HiSilicon, Samsung CR Rel-18 38.331 17.6.0 4396 - B NonCol\_intraB\_ENDC\_NR\_CA-Core

=> Revised in R2-2313888

[R2-2313888](file:///C:\\Users\\panidx\\OneDrive%20-%20InterDigital%20Communications,%20Inc\\Documents\\3GPP%20RAN\\TSGR2_124\\Docs\\R2-2311851.zip) Signaling support for intra-band non-collocated NR-CA, EN-DC KDDI Corporation, Apple, Ericsson, Huawei, HiSilicon, Samsung CR Rel-18 38.331 17.6.0 4396 1 B NonCol\_intraB\_ENDC\_NR\_CA-Core

[R2-2313889](file:///C:\\Users\\panidx\\OneDrive%20-%20InterDigital%20Communications,%20Inc\\Documents\\3GPP%20RAN\\TSGR2_124\\Docs\\R2-2313205.zip) LS to RAN4 on Intra-band non-collocated NR-CA. EN-DC RAN2 LS out Rel-18 NonCol\_intraB\_ENDC\_NR\_CA-Core To:RAN4

#### 7.25.1.3 TCI State Switch indication for HST (Thursday)

*Including outcome of [POST123bis][011][Cross-RRH] Running CR 38.321 (Ericsson)*

R2-2313913 Reply LS to RAN2 on UL Timing Adjustment Solutions in HST FR2

Option 1 vs. option 2

- Nokia thinks option 1 is better even though may be a bit more complex. Qualcomm Thinks that option 2 can’t signal 0 and option 1 better. Oppo think that option 1 is better.

- Ericsson thinks that option 2 is better as it is simpler.

**Agreements**

1. Introduce 1-bit new MAC CE indication corresponding to Case “0” and Case “1”
2. UE capability CRs will be completed by capability rapporteur after RAN4 feature list is received

[R2-2311714](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311714.zip) Reply LS on Dual TCI state switching in mDCI (R1-2310581; contact: Ericsson) RAN1 LS in Rel-18 NR\_FR2\_multiRX\_DL-Core To:RAN4 Cc:RAN2

=> Noted

[R2-2313497](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313497.zip) Cross RRH TCI state switch Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_HST\_FR2\_enh

[R2-2312518](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312518.zip) Introduction of Cross-RRH TCI state switch indication for high speed train Ericsson CR Rel-18 38.321 17.6.0 1706 - B NR\_HST\_FR2\_enh

=> The CR is revised in R2-2313935

* [Post124][026][Cross-RRH] CRs (Ericsson)

Intended outcome: Agree to 38.321,

Deadline: 2 weeks

[R2-2312519](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312519.zip) Introduction of Cross-RRH TCI State Switch indication in RRC for high speed train Ericsson draftCR Rel-18 38.331 17.6.0 NR\_HST\_FR2\_enh

=> The CR are not pursued

[R2-2312520](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312520.zip) Introduction of UE capability on Cross-RRH TCI State Switch indication for high speed train Ericsson draftCR Rel-18 38.306 17.6.0 NR\_HST\_FR2\_enh

=> The CR are not pursued

[R2-2313151](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313151.zip) Introduction of HST FR2 Enhanced TCI State Switch for 38.331 Huawei, HiSilicon, Samsung CR Rel-18 38.331 17.6.0 4470 - B NR\_HST\_FR2\_enh

=> The CR are not pursued

[R2-2313152](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313152.zip) Introduction of HST FR2 Enhanced TCI State Switch for 38.306 Huawei, HiSilicon, Samsung CR Rel-18 38.306 17.6.0 0998 - B NR\_HST\_FR2\_enh

=> The CR are not pursued

*Discussion on capability per UE or per band*

- Oppo thinks that per UE is too complicated for testing purposes, so per band is better.

#### 7.25.1.4 FR2 Multi Rx operation

[R2-2312343](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312343.zip) Introduction on UE preference for multi-Rx operation in UAI Apple, Huawei, HiSilicon, CATT, Ericsson CR Rel-18 38.331 17.6.0 4380 1 B NR\_FR2\_multiRX\_DL-Core [R2-2311164](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311164.zip)

[R2-2312345](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312345.zip) Introduction on UE preference for multi-Rx operation in UAI Apple, Huawei, HiSilicon, CATT, Ericsson CR Rel-18 38.300 17.6.0 0731 - B NR\_FR2\_multiRX\_DL-Core

=> The CR is agreed

[R2-2313482](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313482.zip) Introduction on UE preference for multi-Rx operation in UAI Apple, Huawei, HiSilicon, CATT, Ericcson CR Rel-18 38.306 17.6.0 0971 1 B NR\_FR2\_multiRX\_DL-Core [R2-2311155](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311155.zip)

* [AT124][016][FR2 multi-RX] 38.331 and 38.306(apple)

Intended outcome: split 38.331 into configuration and capability. Agree to 38.331 and endorse UE capability CRs

Deadline: Nov. 17 (to be approved by email)

[R2-2312344](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312344.zip) Introduction on UE preference for multi-Rx operation in UAI Apple, Huawei, HiSilicon, CATT, Ericsson CR Rel-18 38.306 17.6.0 0981 - B NR\_FR2\_multiRX\_DL-Core [R2-2311165](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311165.zip) Withdrawn

#### 7.25.1.5 FR2 SCell Enhancements (Thursday)

*Including outcome of [POST123bis][020][SCell Activation] Review Running CR (Apple)*

[R2-2312300](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312300.zip) Summary of open issue discussion for SCell FR2 Enhancement (Apple) Apple discussion Rel-18 NR\_RRM\_enh3

[R2-2312203](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312203.zip) Enhancements for Unknown FR2 SCell activation Qualcomm Incorporated discussion Rel-18

[R2-2312065](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312065.zip) Further consideration on FR2 SCell Activation CATT discussion Rel-18 NR\_RRM\_enh3

[R2-2312200](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312200.zip) Introduction of FR2 SCell enhancements Xiaomi, Apple CR Rel-18 38.321 17.6.0 1697 - B NR\_RRM\_enh3

=> Revised in R2-2313829

[R2-2313829](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312200.zip) Introduction of FR2 SCell enhancements Xiaomi, Apple CR Rel-18 38.321 17.6.0 1697 1 B NR\_RRM\_enh3

=> Update last change to “indicate to upper layers SCell(s) activation indication ~~for this SCell(s).~~

=> The CR is agreed in R2-2313937 r2 with the changes above

[R2-2312302](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312302.zip) Introduction of FR2 SCell enhancements (Option 2 – CG specific configuration) Apple CR Rel-18 38.331 17.6.0 4422 - B NR\_RRM\_enh3

=> Revised in R2-2313828

[R2-2313828](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312302.zip) Introduction of FR2 SCell enhancements (Option 2 – CG specific configuration) Apple, CATT, Ericsson, Xiaomi, Qualcomm Incorporated, Huawei, HiSilicon, ZTE CR Rel-18 38.331 17.6.0 4422 1 B NR\_RRM\_enh3

- Nokia is not happy with MAC and RRC indication modelling

=> update title to remove option 2

=> The CR is agreed in R2-2313936 with the changes above

[R2-2313498](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313498.zip) Scell activation and L3 reporting Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_RRM\_enh3

=> Noted

[R2-2312299](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312299.zip) Introduction of FR2 SCell enhancements Apple CR Rel-18 38.331 17.6.0 4420 - B NR\_RRM\_enh3

=> The CR is not pursued

[R2-2312301](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312301.zip) Introduction of FR2 SCell enhancements (Option 1 – SCell specific configuration) Apple CR Rel-18 38.331 17.6.0 4421 - B NR\_RRM\_enh3

=> The CR is not pursued

[R2-2312991](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312991.zip) MAC behaviour for FR2 unknown SCell activation enhancements Ericsson CR Rel-18 38.321 17.6.0 1715 - B NR\_RRM\_enh3

=> The CR is not pursued

#### 7.25.1.6 ATG (Thursday)

[R2-2311754](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311754.zip) LS to RAN2 about ATG UE (R4-2317742; contact: CMCC) RAN4 LS in Rel-18 NR\_ATG-Core To:RAN2

=> Noted

[R2-2312287](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312287.zip) Discussion on UE capability for ATG Qualcomm Incorporated discussion Rel-18 NR\_ATG-Core

=> Revised in R2-2313865

[R2-2313865](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312287.zip) Discussion on UE capability for ATG Qualcomm Incorporated discussion Rel-18 NR\_ATG-Core

*Proposal 2 Introduce per band UL TA reporting capability, i.e., uplink-TA-Reporting-ATG-r18, conditional on the support of ATG specific essential features (NOT uplinkPreCompensation-r17)*

- Nokia ask why UL TA reporting is per band and not per UE. Qualcomm explains that uplinkPreCompensation-r17 is per band and UL TA reporting depends on that.

- ZTE explains that the RAN4 LS is stating it is per UE.

- Ericsson thinks that even if ULprecompensation is per band the UL TA reporting is per UE.

*Proposal 3 Introduce maxOutputPower-ATG-r18 with 5 bit INTEGER to indicate UE’s rate maximum output power. For ATG capable UE, it is mandatory with per band UE capability signaling.*

**Agreements**

1 Similar to NTN, introduce master capability for UE to indicate support of ATG essential features, i.e., new SIBxx, cell specific Koffset, UE specific TA calculation, time/frequency compensation.

2 Introduce per UE UL TA reporting capability, i.e., uplink-TA-Reporting-ATG-r18, conditional on the support of ATG specific essential features (NOT uplinkPreCompensation-r17).

3 Introduce maxOutputPower-ATG-r18 with 5 bit INTEGER to indicate UE’s rate maximum output power. For ATG capable UE, it is mandatory with per band UE capability signaling.

4 With UE’s rate maximum output power, clarify the existing power class UE capabilities signaling (e.g., ue-PowerClass) does not apply to ATG. Clarify in stage 2 that CA/DC is not supported for ATG in this release

5 As per RAN4 LS, add clarification in the description of field P-Max that in ATG cell, actual value of P-Max = 9 + field value [dBm].

6 As per RAN4 LS, introduce mandatory enumerated 1 bit per band UE capability AntennaType-r18 whether the ATG UE supports the requirements defined for ATG UE with antenna array.

7 Location-based CHO capability of NTN is used and event D1 (these capabilities have to be updated)

[R2-2313009](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313009.zip) Air to Ground SIB content and capabilities Samsung R&D Institute UK discussion Rel-18 NR\_ATG

Proposal 1: RAN2 to confirm that neighbour cell location info is needed for normal network operation in ATG for RRM.

*Proposal 2: On ATG-specific barring; send LS to RAN4 whether they foresee a scenario where ATG and terrestrial UE share or have overlapping frequency bands.*

- Huawei thinks that it is clear it is needed so

Proposal 3: RAN2 to clarify NTN features ATG can inherit. As a baseline the following NTN features can be inherited by ATG:

- **TA Report**

- Location-based idle/inactive mode measurement-initiation

- Coarse location reporting

- Event D1

- CHO NTN features:

o Event A4

**o Location-based CHO**

o Time-based CHO

Proposal 4: For the inherited NTN features, reuse NTN capabilities.

Proposal 5: Introduce general ATG feature and RAN2 to discuss the essential features.

Proposal 6: Include height-component in location-based NTN features for ATG:

- Coarse location reporting

- Location-based measurement initiation

- Event D1 and CHO triggering based on D1

Proposal 7: Allow for lower precision base station position broadcasted in new SIBxx that can be updated with higher accuracy in connected mode when AS security has been established.

[R2-2313450](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313450.zip) Draft LS on barring non-ATG UEs from accessing ATG cell Samsung LS out Rel-18 NR\_ATG To:RAN4

=> Not treated

[R2-2312061](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312061.zip) On remaining issues of ATG CATT discussion NR\_ATG-Core

=> Noted

[R2-2312656](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312656.zip) Further discussion on the remaining issues for ATG CMCC discussion Rel-18 NR\_ATG-Core

Proposal 5: It is proposed to introduce timingAdvanceSR for ATG

=> Noted

**Agreements:**

1. Similar to NTN, a 1 bit barring mechanism is introduced for ATG UEs. Non-ATG UEs are barred with legacy barring bit in MIB.
2. UE specific Koffset for ATG not support
3. Similar to NTN, it is proposed to introduce timingAdvanceSR for ATG
4. Introduce atg-NeighCellConfigList-r18 in the new SIB to indicate the list of ATG neighbour cells including their carrier frequency, physical cell ID and location information.
5. The maximum number of ATG neighbour cell for which location information is provided is 8
6. The ATG assistance information for the serving cell can be provided to the UE via ServingCellConfigCommon IE in the RRC\_Connected state
7. offsetThresholdTA-ATG-r18 INTEGER (0..56) OPTIONAL -- Need R

[R2-2312776](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312776.zip) Discussion on ATG ZTE Corporation, Sanechips discussion Rel-18 NR\_ATG-Core

*=> Noted*

[R2-2312911](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312911.zip) Discussion on remaining issues of ATG Huawei, HiSilicon discussion Rel-18 NR\_ATG-Core

[R2-2312536](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312536.zip) Discussion on SI for ATG Ericsson discussion Rel-18 NR\_ATG-Core

[R2-2312288](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312288.zip) Introduction of ATG UE UE capabilities Qualcomm Incorporated draftCR Rel-18 38.306 17.6.0 B NR\_ATG-Core

* [POST124][027][ATG] UE capabilities CR (Qualcomm)

Intended outcome: Endorse 38.306 and 38.331 (taking into account latest input of RAN4

Deadline: Nov. 23

* [POST124][028][ATG] 38.331 CR (CMCC)

Intended outcome: Agree to 38.331

Deadline: 2 weeks

* [POST124][029][ATG] 38.321 CR (CMCC)

Intended outcome: Agree to 38.321

Deadline: 2 weeks

* [POST124][029][ATG] 38.300 CR (CMCC)

Intended outcome: Agree to 38.321

Deadline: 2 weeks

* [POST124][030][ATG] 38.304 CR (LG)

Intended outcome: Agree to 38.304

Deadline: 2 weeks

[R2-2312654](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312654.zip) Introduction of NR ATG in TS 38.331 CMCC CR Rel-18 38.331 17.6.0 4437 - B NR\_ATG-Core

=> The CR is endorsed as baseline and will updated over email discussion

[R2-2312655](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312655.zip) Introduction of NR ATG in TS 38.321 CMCC CR Rel-18 38.321 17.6.0 1710 - B NR\_ATG-Core

- Samsung thinks that we don’t need a R bit at all as it is an ATG cell.

=> Discuss need for R bit in email discussion

=> The CR is endorsed as baseline and will updated over email discussion

[R2-2313215](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313215.zip) Introduction of NR ATG in TS 38.300 CMCC CR Rel-18 38.300 17.6.0 0740 - B NR\_ATG-Core

=> The CR is endorsed as baseline and will updated over email discussion

#### 7.25.1.7 Other

*Including BWP operation without restrictions, measurement gaps, etc*

*Including outcome of [POST123bis][007][BWP switching] (Vivo)*

**BWP operation without restrictions (Tuesday)**

[R2-2311750](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311750.zip) LS on conclusion on BWP operation without restriction (R4-2317430; contact: vivo, Vodafone) RAN4 LS in Rel-18 NR\_BWP\_work-Core To:RAN2, RAN1

=> Noted

[R2-2311922](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311922.zip) Discussion on BWP\_Wor based on RAN4 LS vivo, Vodafone discussion Rel-18 NR\_BWP\_wor-Core

**Agreements**

1. Capture the behavior that UE shall report no gap and no interruption/no NCSG for intra-frequency measurement in RRC specification. Detailed TP is provided in Annex A.
2. RAN2 to adopt option 2 (i.e. only change stage-2, as shown in Annex B1) to restrict the NCD-SSB measurement is only applicable for PCell.

*Proposal 2: For UE supporting option C (i.e. NCD-SSB) and configured with DC, NCD-SSB based L1/L3 intra-frequency measurement requirements are also applicable for the PSCell.*

- Ericsson has a different view.

- Huawei thinks that from RAN2 perspective we don’t see a difference between PSCell and PCell. Qualcomm thinks that PSCell can be deactivated and that’s why we can’t agree on this.

=> Can ask what RAN4 thinks should be done for PSCell. Send LS to RAN4 asking

Proposal 2a: A reply LS should be sent to RAN4 to inform them the decision on PSCell. A draft reply LS is provided in Annex C.

*Proposal 3: RAN2 to adopt option 2 (i.e. only change stage-2, as shown in Annex B1) to restrict the NCD-SSB measurement is only applicable for PSCell/PCell.*

- ZTE doesn’t think we should capture it. Not having a requirement doesn’t mean the UE is restricted to not support it.

- Qualcomm thinks that it makes sense to capture something to make it clear.

Proposal 3a: If Proposal 3 is not agreeable, RAN2 to adopt option 3 (i.e. make the restriction in both stage-2 and stage-3 specification, as shown in Annex B2) to restrict the NCD-SSB measurement is only applicable for PSCell/PCell.

=> Noted

* [AT124][012][BWP restrictions] LS to RAN4 (Vivo)

Intended outcome: Approve LS to RAN4 indicating the RAN2 agreements are related to PCell and ask about SPCell

Deadline: Nov. 17 (to be approved by email)

* [POST124][013][BWP restrictions] 38.331 and 38.300(Vivo)

Intended outcome: split 38.331 into configuration and capability. Agree to 38.331 and endorse UE capability CRs

Deadline: Nov. 17 (to be approved by email)

[R2-2311923](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311923.zip) Discussion on BWP\_Wor impact based on RAN1 LS for RedCap vivo, Vodafone discussion Rel-18 NR\_BWP\_wor-Core

[R2-2311924](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311924.zip) Introduction of support for BWP operation without restriction vivo, Vodafone, ZTE Corporation, Sanechips, Ericsson CR Rel-18 38.300 17.6.0 0721 - B NR\_BWP\_wor-Core

[R2-2311925](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311925.zip) Introduction of support for BWP operation without restriction vivo, Vodafone, ZTE Corporation, Sanechips, Ericsson CR Rel-18 38.331 17.6.0 4398 - B NR\_BWP\_wor-Core

**Network assistant signalling for advanced receivers (Tuesday)**

[R2-2311739](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311739.zip) LS on network assistant signalling for advanced receivers (R4-2316980; contact: Nokia) RAN4 LS in Rel-18 NR\_demod\_enh3-Core To:RAN2 Cc:RAN1

=> Noted

[R2-2311740](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311740.zip) Reply LS on required DCI signalling for advanced receiver on MU-MIMO scenario (R4-2317011; contact: HiSilicon, Apple, China Telecom) RAN4 LS in Rel-18 NR\_demod\_enh3-Core To:RAN1 Cc:RAN2

=> Noted

[R2-2313204](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313204.zip) Discussion on signalling to support MU-MIMO advanced receivers Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_demod\_enh3-Core

*Proposal 1: Each of the network-signalled indications for advanced receiver mentioned in the RAN4 LS are optional.*

*Agreements:*

1. Each of the network-signalled indications for advanced receiver mentioned in the RAN4 LS are optional

*Proposal 2: Default assumptions are specified for the UE advanced MU-MIMO receiver configuration. Network assistant signalling is used to inform the UE to apply non-default assumptions.*

­- Qualcomm thinks that we should explicit have true or false

*Proposal 3: RAN2 should confirm with RAN4 that the following assumption no longer needs to be signalled to the UE:*

*- The DM-RS power boosting configurations (i.e., Number of DM-RS CDM groups without data) of all co-scheduled UE(s), which have the same DM-RS sequence of the target UE, are the same as the target UE.*

- China Telecom thinks that RAN4 has made an agreement that DM-RS power boosting configuration is needed so no LS needs to be send.

*Proposal 4: By default, the UE treats the following assumptions as valid/true. Network assistant signalling is used to indicate if these assumptions are not valid/false.*

*- The precoding and resource allocation of the co-scheduled UE(s) are the same in the PRG-level grid configured to the target UE when PRG=2 or 4.*

*- The time domain resource assignment for PDSCH symbols of all co-scheduled UE(s), which have the same DM-RS sequence of the target UE, are the same as the target UE.*

*Proposal 5: By default, the UE considers that any one of the MCS tables {qam64, qam256, qam1024} could have highest modulation order among the MCS tables configured for the co-scheduled UE(s) with same DM-RS sequence as the target UE. Network assistant signalling is used to indicate explicitly to the UE which MCS table has highest modulation order.*

*Proposal 6: UE supporting advanced receiver is informed of the existence of MU-MIMO DCI via SearchSpace configuration. FFS whether any additional details of the MU-MIMO DCI configuration need to be indicated to the UE based on RAN1’s agreements.*

*Proposal 7: Send reply LS R2-2313205 to RAN4 (with RAN1 copied) to confirm the requested signalling can be supported by RRC as proposed in P1 and P4-P6, and to ask about P3.*

[R2-2313205](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313205.zip) Draft Reply LS on network assistant signalling for advanced receivers Nokia, Nokia Shanghai Bell LS out Rel-18 NR\_demod\_enh3-Core To:RAN4 Cc:RAN1

[R2-2312064](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312064.zip) Discussion on network signalling for advanced receivers CATT discussion Rel-18 NR\_demod\_enh3-Core

[R2-2313338](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313338.zip) Introduction of network RRC signalling for advanced receiver CATT CR Rel-18 38.331 17.6.0 4488 - B NR\_demod\_enh3-Core

- Huawei thinks that the granularity needs to be discussed by RAN4

* [POST124][031][adv. receiver] 38.331 (CATT)

Intended outcome: Update 38.331 with RAN4 new agreements, agree to 38.331 extract key questions for RAN4 and LS to RAN4 for key questions.

Deadline: 2 weeks

[R2-2313483](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313483.zip) Discussion on the network assistant signalling for advanced receivers Huawei, HiSilicon discussion Rel-18 NR\_demod\_enh3-Core

[R2-2312921](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312921.zip) Network assistant signaling for advanced receivers Qualcomm Incorporated discussion NR\_demod\_enh3-Core

**Measurement gap enhancements**

[R2-2313882](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311739.zip) LS on inter-RAT measurement without gap (R4-2321345; contact: Ericsson) RAN4 LS in Rel-18 NR\_MG\_enh2-Core To:RAN2

=> Noted

[R2-2311928](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311928.zip) Discussion on further measurement gap enhancement MediaTek Inc. discussion NR\_MG\_enh2-Core [R2-2310362](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310362.zip)

=> RAN2 is waiting for RAN4 discussion on Rel-16 UE capability and whether that should be understood that no gap means no interruption

=> Noted

[R2-2312708](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312708.zip) Discussion on interruption requirement on Rel-16 no-gap reporting Nokia, Nokia Shanghai Bell,BT Plc discussion Rel-18 NR\_MG\_enh2-Core

[R2-2313352](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313352.zip) Discussion on measurement gap enhancement vivo discussion Rel-18 NR\_MG\_enh2-Core

[R2-2311893](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311893.zip) Introduction of measurements without gap with interruption MediaTek Inc., Huawei, HiSilicon CR Rel-18 36.331 17.6.0 4929 5 B NR\_MG\_enh2-Core [R2-2310393](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310393.zip)

=> The CR is agreed

[R2-2311894](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311894.zip) Introduction of measurements without gap with interruption MediaTek Inc., Huawei, HiSilicon CR Rel-18 36.306 17.4.0 1870 5 B NR\_MG\_enh2-Core [R2-2310395](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310395.zip)

=> The CR is agreed

[R2-2311895](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311895.zip) Introduction of further measurement gap enhancements MediaTek Inc., Huawei, HiSilicon CR Rel-18 38.331 17.6.0 4063 5 B NR\_MG\_enh2-Core [R2-2310397](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310397.zip)

=> The CR is endorsed as baseline review by email

* [POST124][031][meas. Gap] 38.331 (Mediatek)

Intended outcome: agree to CR

Deadline: 2 weeks

[R2-2311897](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311897.zip) Introduction of UE capabilities for further measurement gap enhancements MediaTek Inc., Huawei, HiSilicon CR Rel-18 38.331 17.6.0 4286 2 B NR\_MG\_enh2-Core [R2-2310403](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310403.zip)

=> The CR is endorsed and will be merged with mega CR

[R2-2311927](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311927.zip) Introduction of UE capabilities for further measurement gap enhancements MediaTek Inc., Huawei, HiSilicon CR Rel-18 38.306 17.6.0 0906 5 B NR\_MG\_enh2-Core [R2-2310404](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310404.zip)

=> The CR is endorsed and will be merged with mega CR

**FR2 HST**

[R2-2311743](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311743.zip) LS on signalling for RRM enhancements for Rel-18 NR FR2 HST (R4-2317342; contact: Samsung) RAN4 LS in Rel-18 NR\_HST\_FR2\_enh To:RAN2

=> Noted

[R2-2312378](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312378.zip) Signaling support for Rel-18 HST FR2 RRM enhancement Samsung discussion Rel-18 NR\_HST\_FR2\_enh

[R2-2312521](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312521.zip) Discussion on RAN4 LS R4-2317342 Ericsson discussion Rel-18 NR\_HST\_FR2\_enh

[R2-2312379](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312379.zip) Introduction of Rel-18 HST FR2 RRM enhancements Samsung CR Rel-18 38.331 17.6.0 4428 - B NR\_HST\_FR2\_enh

=> Check if CR is needed

**4Tx TxD (Friday CB)**

[R2-2311753](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311753.zip) LS on signalling for 4Tx TxD (R4-2317617; contact: vivo) RAN4 LS in Rel-18 NR\_ENDC\_RF\_FR1\_enh2-Core To:RAN2

[R2-2311795](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311795.zip) Left issues on per-BC-per-band Tx-diversity OPPO discussion Rel-18 4Rx\_low\_NR\_band\_handheld\_3Tx\_NR\_CA\_ENDC-Core, NR\_ENDC\_RF\_FR1\_enh2-Core

[R2-2313201](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313201.zip) Discussion on Rel-18 Tx Diversity UE capabilities Nokia, Nokia Shanghai Bell discussion Rel-18 4Rx\_low\_NR\_band\_handheld\_3Tx\_NR\_CA\_ENDC-Core, NR\_ENDC\_RF\_FR1\_enh2-Core

[R2-2312821](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312821.zip) On new UE capability for TxD Ericsson discussion Rel-18 NR\_ENDC\_RF\_FR1\_enh2-Core, 4Rx\_low\_NR\_band\_handheld\_3Tx\_NR\_CA\_ENDC-Core

[R2-2311920](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311920.zip) Introduction of UE capability on TxDiversity for 4Tx vivo CR Rel-18 38.331 17.6.0 4397 - B NR\_ENDC\_RF\_FR1\_enh2-Core

[R2-2311921](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311921.zip) Introduction of UE capability on TxDiversity for 4Tx vivo CR Rel-18 38.306 17.6.0 0975 - B NR\_ENDC\_RF\_FR1\_enh2-Core

[R2-2311756](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311756.zip) LS on new per band per BC TxD capability (R4-2317762; contact: Huawei) RAN4 LS in Rel-18 4Rx\_low\_NR\_band\_handheld\_3Tx\_NR\_CA\_ENDC-Core To:RAN2

[R2-2313202](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313202.zip) Introduction of Rel-18 Tx Diversity capabilities Nokia, Nokia Shanghai Bell CR Rel-18 38.306 17.6.0 1002 - B 4Rx\_low\_NR\_band\_handheld\_3Tx\_NR\_CA\_ENDC-Core, NR\_ENDC\_RF\_FR1\_enh2-Core

[R2-2313203](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313203.zip) Introduction of Rel-18 Tx Diversity capabilities Nokia, Nokia Shanghai Bell CR Rel-18 38.331 17.6.0 4477 - B 4Rx\_low\_NR\_band\_handheld\_3Tx\_NR\_CA\_ENDC-Core, NR\_ENDC\_RF\_FR1\_enh2-Core

[R2-2313419](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313419.zip) UE capability for TxD Samsung discussion NR\_ENDC\_RF\_FR1\_enh2-Core, 4Rx\_low\_NR\_band\_handheld\_3Tx\_NR\_CA\_ENDC-Core

2Tx

[R2-2311918](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311918.zip) Clarification on TxDiversity for 2Tx vivo CR Rel-16 38.306 16.14.0 0973 - F TEI16, NR\_RF\_TxD-Core

[R2-2311919](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311919.zip) Clarification on TxDiversity for 2Tx vivo CR Rel-17 38.306 17.6.0 0974 - A TEI16, NR\_RF\_TxD-Core

[R2-2313472](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313472.zip) Introduction of new TxD capability for 2Tx Huawei, HiSilicon CR Rel-17 38.331 17.6.0 4499 - B 4Rx\_low\_NR\_band\_handheld\_3Tx\_NR\_CA\_ENDC-Core

[R2-2313473](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313473.zip) Introduction of new TxD capability for 2Tx Huawei, HiSilicon CR Rel-17 38.306 17.6.0 1010 - B 4Rx\_low\_NR\_band\_handheld\_3Tx\_NR\_CA\_ENDC-Core

[R2-2312360](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312360.zip) Handling Rel-17 DC location signaling enhancement Apple, Ericsson discussion Rel-18 NR\_RF\_FR2\_req\_enh2-Core

**Channel raster**

[R2-2311758](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311758.zip) LS on a capability for channel raster enhancement (R4-2317773; contact: Ericsson) RAN4 LS in Rel-18 NR\_channel\_raster\_enh To:RAN2

=> Noted

Not treated (already in RAN4 feature list)

[R2-2312819](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312819.zip) UE capability for Enhanced channel raster Ericsson CR Rel-18 38.331 17.6.0 4445 - B NR\_channel\_raster\_enh

[R2-2312820](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312820.zip) UE capability for Enhanced channel raster Ericsson CR Rel-18 38.306 17.6.0 0994 - B NR\_channel\_raster\_enh

### 7.25.2 RAN1 led items

E.g. UL Tx Switching, MC enhancements, DSS

Including outcome of [POST123bis][008][UL TX Switch] Review updated running CR 38.331 (Huawei)

[R2-2311708](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311708.zip) LS on TS38.300 TP for UL Tx switching in Rel-18 )(R1-2310492; contact: NTT DOCOMO) RAN1 LS in Rel-18 NR\_MC\_enh-Core To:RAN2 Cc:RAN4

=> Noted

[R2-2311719](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311719.zip) Response LS on determination of switching period location in frequency domain based on band priority (R1-2310679; contact: NTT DOCOMO) RAN1 LS in Rel-18 NR\_MC\_enh-Core To:RAN4, RAN2

=> Noted

[R2-2311751](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311751.zip) LS on Rel-18 UL Tx switching for parallel switching on four bands (R4-2317609; contact: MediaTek) RAN4 LS in Rel-18 NR\_MC\_enh-Core To:RAN2 Cc:RAN1

=> Noted

[R2-2311752](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311752.zip) LS on unaffected band case for UL Tx switching (R4-2317610; contact: vivo) RAN4 LS in Rel-18 NR\_MC\_enh-Core To:RAN2 Cc:RAN1

=> Noted

[R2-2311759](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311759.zip) LS on Rel-18 Tx switching enhancement (R4-2317774; contact: Huawei) RAN4 LS in Rel-18 NR\_MC\_enh-Core To:RAN2 Cc:RAN1

=> Noted

[R2-2313474](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313474.zip) Draft 38.300 CR for introduction of Rel-18 UL Tx switching NTT DOCOMO, INC. draftCR Rel-18 38.300 17.6.0 B NR\_MC\_enh-Core

=> The CR is endorsed and will be updated after this meetings agreements

[R2-2311972](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311972.zip) Introduction of RRC configuration for Rel-18 UL Tx switching enhancements Huawei, HiSilicon, NTT DOCOMO INC. CR Rel-18 38.331 17.6.0 4138 2 B NR\_MC\_enh-Core [R2-2306911](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2306911.zip)

=> The CR is endorsed

[R2-2311973](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311973.zip) UE capability reporting for Rel-18 UL Tx switching enhancements Huawei, HiSilicon, NTT DOCOMO INC. CR Rel-18 38.331 17.6.0 4139 2 B NR\_MC\_enh-Core [R2-2306912](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2306912.zip)

=> The CR is endorsed and will be updated further

[R2-2311974](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311974.zip) Introduction of UE capability for Rel-18 UL Tx switching Huawei, HiSilicon, NTT DOCOMO INC. CR Rel-18 38.306 17.6.0 0924 2 B NR\_MC\_enh-Core [R2-2306913](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2306913.zip)

=> The CR is endorsed and will be updated further

[R2-2311975](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311975.zip) Report of of [POST123bis][008][UL TX Switch] 38.331 Running CR (Huawei) Huawei, HiSilicon report Rel-18 NR\_MC\_enh-Core

=> Noted

[R2-2313510](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313510.zip) On ambiguity issue of switching period (LS R4-2317774) Huawei, HiSilicon, NTT DOCOMO INC., Ericsson, CMCC discussion Rel-18 NR\_MC\_enh-Core

*Proposal 1: To avoid misalignment between the UE and the NW, RAN2 to agree to introduce new RRC signaling to indicate the switching periods for each configured band pairs by the NW, and send the LS reply to RAN4.*

[R2-2311796](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311796.zip) Left Issues on Tx-Switching OPPO, Apple discussion Rel-18 NR\_MC\_enh-Core

*Proposal 1 R2 work on the Tx switching period ambiguity issue under the condition of avoiding mandating UE, for a child-BC, to support the switching period of all parent-BC:s.*

*Proposal 2 R2 discuss to introduce capability bit(s) to align between gNB and UE on whether the switching period of parent BC(s) is applicable to child BC(s).*

[R2-2312583](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312583.zip) Discussion on the remaining issues of UL TX switching vivo discussion Rel-18

*Proposal 1: Reply RAN4 LS as follows: To address the ambiguity issue of the length of switching period for the fallback band combinations, the maximum switch period capability is applied for each band pair between A+B+C+D and A+B+C+E.*

Discussion

- QC supports network configuration. Mediatek asks if the network will assign switch period even for rel-16/17. Huawei confirms it is from R18. CATT also support proposal from Huawei. It is a corner case.

- Apple is concerned that when network configure CA the UE determines the RF configuration and if the network indicates a different switching period the UE has to redo RF operation. If there is no ambiguity the UE can use the max value.

- Oppo thinks that a UE capability will be necessary and with Huawei proposal this will be mandatory for the UE. Huawei thinks that the network will follow the UE capability. Qualcomm doesn’t want to do both UE Capability and network configuration.

[R2-2313454](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313454.zip) UE capabilities of Rel-18 UL Tx switching enhancements – Switching band pair indication approach for parallel switching on four bands MediaTek Inc. draftCR Rel-18 38.306 17.6.0 B NR\_MC\_enh-Core

[R2-2313455](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313455.zip) UE capabilities of Rel-18 UL Tx switching enhancements – Switching band pair indication approach for parallel switching on four bands MediaTek Inc. draftCR Rel-18 38.331 17.6.0 B NR\_MC\_enh-Core

[R2-2312775](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312775.zip) Discussion on remaining issues of Rel-18 UL Tx switching ZTE Corporation, Sanechips discussion Rel-18 NR\_MC\_enh-Core

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[R2-2312973](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312973.zip) Discussion on UL Tx switching for parallel switching on four bands Ericsson discussion

[R2-2313512](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313512.zip) Discussion on RAN1/RAN4 LSs on Rel-18 UL Tx switching Huawei, HiSilicon discussion Rel-18 NR\_MC\_enh-Core

[R2-2313511](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313511.zip) Support of configuring 2 bands in Rel-18 UL Tx switching Huawei, HiSilicon, CMCC discussion Rel-18 NR\_MC\_enh-Core

Proposal 1: RAN2 to confirm that Rel-18 signalling can configure 2 bands UL Tx switching for a band pair that the UE supports according to the Rel-18 band pair list UE capability, in which case the network and UE assume the capability reported for R18 UL Tx switching is used. RAN2 sends LS to RAN1 and RAN4.

- ZTE doesn’t have the same understanding.

**Agreements:**

1. FFS To avoid misalignment between the UE and the NW, RAN2 to agree to introduce new RRC signaling to indicate the switching periods for each configured band pairs by the NW, and send the LS reply to RAN4. FFS UE capability reporting is needed.
2. RAN2 introduce following capability. Supporting the advanced capability of the switching period can be improved to min {max(Tswitch\_A-C, Tswitch\_B-D), max(Tswitch\_A-D, Tswitch\_B-C)} .
3. RAN2 confirms that Rel-18 signalling can configure 2 bands UL Tx switching for a band pair that the UE supports according to the Rel-18 band pair list UE capability, in which case the network and UE assume the capability reported for R18 UL Tx switching is used.
4. Ask RAN4 if the following RAN2 understanding is ok “**if “switching2T-Mode-r18” IE is configured for a band pair, then 2Tx-2Tx switching period of this band pair will be considered as the input for switching period calculation, for instance, when calculating “min {max(Tswitch\_A-C, Tswitch\_B-D), max(Tswitch\_A-D, Tswitch\_B-C)}” or “max(Tswitch\_A-C,Tswitch\_B-D ,Tswitch\_A-D, Tswitch\_B-C)” for switching across 4 bands.”**
5. RAN2 sends LS to RAN1 and RAN4 to inform agreements 2-4 and ask questions about 3 and 4

* [POST124][007][MC enhancement] 38.331 CR (Huawei, NTT Docomo)

Intended outcome: agree to 38.331 CR

Deadline: 2 weeks

* [POST124][007][MC enhancement] 38.300 CR (NTT Docomo)

Intended outcome: agree to CR

Deadline: 2 weeks

* [POST124][008][UL Tx switching] UE Capability CR ()

Intended outcome: endorse 38.306 and 38.331 for UE capability

Deadline: Nov. 23rd

* [AT124][009][UL TX switching] LS to RAN4 and RAN1 (Huawei)

Intended outcome: LS to RAN4

Deadline: Thursday (to be approved by email)

[R2-2312068](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312068.zip) On remaining issues for UL Tx switching and multi-cell scheduling CATT discussion

[R2-2313476](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313476.zip) Discussion on RAN4 LS on switching period across four bands NTT DOCOMO, INC. discussion Rel-18 Proposal 2. RAN2 introduce following capability.

|  |
| --- |
| * Supporting the advanced capability of the switching period can be improved to min {max(Tswitch\_A-C, Tswitch\_B-D), max(Tswitch\_A-D, Tswitch\_B-C)} . |

[R2-2312974](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312974.zip) Introduction of R18 DSS Ericsson, ZTE Corporation CR Rel-18 38.331 17.6.0 4360 1 B NR\_DSS\_enh-Core [R2-2310954](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310954.zip) Withdrawn

[R2-2312993](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312993.zip) Running 38.331 CR for R18 DSS Ericsson, ZTE Corporation CR Rel-18 38.331 17.6.0 4360 2 B NR\_DSS\_enh-Core [R2-2310954](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2310954.zip) Revised

[R2-2313457](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313457.zip) Draft 38.331 CR for introduction of multi-cell PDSCH\_PUSCH scheduling NTT DOCOMO, INC., Huawei, HiSilicon draftCR Rel-18 38.331 17.6.0 B NR\_MC\_enh-Core

### 7.25.3 Other

RAN3, SA2, SA3, CT1 led items and others, e.g. eNPN, Slicing.

[R2-2311727](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_124\\Docs\\R2-2311727.zip) Reply LS on the usage of paging subgrouping information in RAN in case of abnormal scenario (R3-235883; contact: Huawei) RAN3 LS in Rel-18 5GProtoc18 To:CT1 Cc:RAN2, SA2

[R2-2311733](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311733.zip) Reply LS on FS\_VMR solutions review (R3-235924; contact: Qualcomm) RAN3 LS in Rel-18 FS\_VMR To:SA2 Cc:RAN2, RAN4, RAN

[R2-2311763](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311763.zip) Reply LS on RedCap UE MBS Broadcast reception (S2-2311706; contact: ZTE) SA2 LS in Rel-18 5MBS\_Ph2 To:RAN3, RAN2

[R2-2311994](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311994.zip) Introduction of R18 eNPN for TS 38.300 China Telecom CR Rel-18 38.300 17.6.0 0723 - B eNPN\_Ph2-NGRAN-Core

[R2-2311995](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311995.zip) Introduction of R18 eNPN for TS 38.304 China Telecom, ZTE Corporation, Sanechips, CATT, Huawei, HiSilicon CR Rel-18 38.304 17.6.0 0356 - B eNPN\_Ph2-NGRAN-Core

[R2-2311996](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311996.zip) Introduction of R18 eNPN for TS 38.331 China Telecom CR Rel-18 38.331 17.6.0 4405 - B eNPN\_Ph2-NGRAN-Core

[R2-2311997](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2311997.zip) Introduction of R18 eNPN for TS 38.306 China Telecom, Lenovo draftCR Rel-18 38.306 17.6.0 B eNPN\_Ph2-NGRAN-Core

[R2-2312942](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312942.zip) Introduction of LCS User Plane Ericsson CR Rel-18 38.305 17.6.0 0152 - B TEI18

[R2-2312965](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312965.zip) CN assistance for MBS broadcast sessions for RedCap UEs Ericsson, Qualcomm discussion Rel-18 TEI18

[R2-2313153](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313153.zip) Introduction of NAS-AS interaction of NS-AoS for TS 38.300 Huawei, HiSilicon CR Rel-18 38.300 17.6.0 0739 - B eNS\_Ph3

### 7.25.4 Self-Evaluation NTN

(FS\_IMT-2020\_Sat\_eval; leading Group: TSG RAN; REL-18; WID: [RP-230736](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_99/Docs/RP-230736.zip))

This will be treated in NTN breakout session (Sergio).

Study on Self-Evaluation towards the 3GPP submission of a IMT-2020 Satellite Radio Interface Technology, including both NR NTN and IoT-NTN. Note that the time allocated will be very limited, and this is expected to be mostly an offline activity.

[R2-2312865](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2312865.zip) Discussion on IMT-2020 Satellite self-evaluation for Latency THALES discussion Rel-18 NR\_NTN\_enh-Core

# 8 Breakout session reports

No documents shall be submitted to this AI or its sub-AIs. It is only for at-meeting-generated contents.

## 8.1 Session on LTE V2X and NR SL

[R2-2313561](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313561.zip) Report from session on LTE V2X and NR SL Vice Chairman (Samsung)

## 8.2 Session on NR MIMO evolution and Multi-SIM

[R2-2313562](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313562.zip) Report from session on NR MIMO evolution and Multi-SIM’ Vice Chairman (CATT)

## 8.3 Session on NR NTN and IoT NTN

[R2-2313563](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313563.zip) Report from Break-Out Session on NR NTN and IoT NTN Session chair (ZTE)

## 8.4 Session on positioning and sidelink relay

[R2-2313564](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313564.zip) Report from session on positioning and sidelink relay Session chair (MediaTek)

## 8.5 Report from session on Mobility Enh, Mobile IAB and LP-WUS

[R2-2313565](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313565.zip) Report from session on Mobility Enh, Mobile IAB and LP-WUS Session chair (MediaTek)

## 8.6 Session on MBS and QoE

[R2-2313566](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313566.zip) Report from session on MBS and QoE Session chair (CMCC)

## 8.7 Report from SON/MDT session

[R2-2313567](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_124\\Docs\\R2-2313567.zip) Report from SON/MDT session Session chair (Huawei)

## 8.8 Session on IDC

[R2-2313568](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313568.zip) Report from IDC breakout session Session chair (Intel)

## 8.9 Session on NC Repeater

[R2-2313569](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_124\\Docs\\R2-2313569.zip) Report from NC Repeater breakout session Session chair (Apple)

## 8.10 Session on maintenance and eRedCap

[R2-2313570](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_124\Docs\R2-2313570.zip) Report from maintenance and eRedCap breakout session Session chair (Ericsson)

## 8.11 Session on Further NR coverage enhancements

[R2-2313571](C:\\Users\\panidx\\OneDrive - InterDigital Communications, Inc\\Documents\\3GPP RAN\\TSGR2_124\\Docs\\R2-2313571.zip) Report from Further NR coverage enhancements session Session chair (ZTE)