3GPP TSG-RAN WG2 Meeting #119 electronic [R2-2208703](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208703.zip)

Online, August, 2022

Source: Session Chair (InterDigital)

Title: Report for Rel-17 Small data and URLLC/IIoT

**Email discussions:**

* [AT119-e][300] Organizational Diana – URLLC/IIoT, Small data]

Scope:

* + - Share plans for the meetings and list of ongoing email discussions for the sessions related to Rel-17 URLLC/IIoT, Small data, RA Partitioning, R15-16 UP, Rel-18 UAV and NES
    - Share meetings notes and agreements for review and endorsement
* [AT119-e][301][Sdata] CP Open issues and CR to 38.331 (ZTE)

CP open issues and CR capturing agreed corrections

Deadline: To be set by rapporteur aiming to have company inputs and proposals by Friday

* [AT119-e][302][Sdata] UP open issues and CR to 38.321 (Huawei)

UP open issues and CR capturing agreed corrections

Deadline: To be set by rapporteur aiming to have company inputs and proposals by Friday

* [AT119-e][303][Sdata] CR 38.300 (Nokia)

CR capturing agreed corrections

Deadline:

* [AT119-e][304][IIoT] CR 38.300 (Nokia)

CR capturing agreed corrections

Deadline:

* [AT119-e][305][IIoT] CP open issues and CR 38.331 (Ericsson)

CP open issues and CR capturing agreed corrections

Deadline: To be set by rapporteur

* [AT119-e][306][IIoT] UP open issues and CR 38.321 (Samsung)

UP open issues and CR capturing agreed corrections

Deadline: To be set by rapporteur

* [AT119-e][307][RA Part] CP open issues and CR 38.331 (Ericsson)

CP open issues and CR capturing agreed corrections

Deadline: To be set by rapporteur

* [AT119-e][308][RA Part] UP open issues and CR 38.321 (ZTE)

UP open issues and CR capturing agreed corrections

Deadline: To be set by rapporteur

* [AT119-e][309][R15/16 UP] CRs on UP (Nokia)

UP open issues and agreable CRs capturing agreed corrections

Deadline: To be set by rapporteur

* [AT119-e][310][R18 Others - Low Latency] LS on Low latency (Huawei)

Discuss LS response on Low latency

Deadline: To be set by rapporteur

* [AT119-e][311][SDT-Positioning] Config Transfer (Google)

Discuss LS response on Low latency

Deadline: To be set by rapporteur

* [AT119-e][312][SDT] TA validation for CG-SDT (ZTE)

Discuss LS response

Deadline: To be set by rapporteur

# 5 NR Rel-15 and Rel-16

Essential corrections only.

Tdoc Limitation: 11 tdocs in total for all sub agenda items.

### 5.1.2 User Plane corrections

User Plane corrections will be handled in a break out session

#### 5.1.2.1 MAC

[R2-2208008](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208008.zip) SPS HARQ feedback dropping for TDD Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

- Ericsson agrees with the principle and wants to review offline.

- Samsung thought that the agreement was that the timer is started after feedback is transmitted. In MBS the HARQ feedback can be disabled and we didn’t change the existing text. Huawei, OPPO agrees with Samsung. Nokia is concerned that if PUCCH is dropped in PHY due to prioritization than the MAC wouldn’t know. Samsung thinks that there is an interaction and the PHY should notify. Qualcomm explains that the UE can easily implement this MAC/PHY interaction and Rel-15 specs already implemented.

- Qualcomm thinks that there is nothing broken if this is not agreed. The gNB is aware the feedback is dropped and can act accordingly.

- Mediatek agrees with the proposal.

- CATT explains that cross layer check of actual L1 transmission is already supported in R16 MAC. Nokia explains that the concern is that if the UE doesn’t start the timer the UE cannot retransmit.

- Qualcomm further indicates this was also discussed in NR-U where LBT may fail for PUCCH. The gNB is not aware. Yet, even in that case, we kept the current spec.

- LG wonders what the gNB might think if the feedback is not received, it could be lost and the UE will not start the timer anyways and it is dangerous for the gNB to assume that the feedback is lost or disabled.

- Nokia asks if the same understanding applies to PUSCH.

=> The CR is not agreed

Straight to email discussion 309

[R2-2207896](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207896.zip) Clarification on BFD while SCell is deactivated Nokia, Nokia Shanghai Bell CR Rel-16 38.321 16.9.0 1347 - F NR\_eMIMO-Core

[R2-2207897](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207897.zip) Clarification on BFD while SCell is deactivated Nokia, Nokia Shanghai Bell CR Rel-17 38.321 17.1.0 1348 - A NR\_eMIMO-Core

[R2-2207898](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207898.zip) Clarification on the matching TB size for 2-step RA Nokia, Nokia Shanghai Bell CR Rel-16 38.321 16.9.0 1349 - F NR\_2step\_RACH-Core

[R2-2207899](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207899.zip) Clarification on the matching TB size for 2-step RA Nokia, Nokia Shanghai Bell CR Rel-17 38.321 17.1.0 1350 - A NR\_2step\_RACH-Core

[R2-2208009](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208009.zip) Clarification on HARQ RTT timer in case of HARQ feedback dropping Nokia, Nokia Shanghai Bell CR Rel-15 38.321 15.13.0 1358 - F NR\_newRAT-Core

[R2-2208010](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208010.zip) Clarification on HARQ RTT timer in case of HARQ feedback dropping Nokia, Nokia Shanghai Bell CR Rel-16 38.321 16.9.0 1359 - A NR\_newRAT-Core

[R2-2208011](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208011.zip) Clarification on HARQ RTT timer in case of HARQ feedback dropping Nokia, Nokia Shanghai Bell CR Rel-17 38.321 17.1.0 1360 - A NR\_newRAT-Core

[R2-2208024](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208024.zip) Clarification on configuredGrantTimer and cg-RetransmissionTimer Nokia, Nokia Shanghai Bell CR Rel-16 38.321 16.9.0 1362 - F TEI16, NR\_unlic-Core

[R2-2208025](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208025.zip) Clarification on configuredGrantTimer and cg-RetransmissionTimer Nokia, Nokia Shanghai Bell CR Rel-17 38.321 17.1.0 1363 - A TEI16, NR\_unlic-Core, NR\_SmallData\_INACTIVE-Core

[R2-2208254](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208254.zip) Correction on RA Resource Selection in Rel-15 vivo CR Rel-15 38.321 15.13.0 1373 - F NR\_newRAT-Core

[R2-2208261](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208261.zip) Correction on RA Resource Selection in Rel-16 vivo CR Rel-16 38.321 16.9.0 1375 - F NR\_newRAT-Core, NR\_2step\_RACH-Core

[R2-2208263](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208263.zip) Correction on RA Resource Selection in Rel-17 vivo CR Rel-17 38.321 17.1.0 1376 - A NR\_newRAT-Core, NR\_2step\_RACH-Core

#### 5.1.2.2 RLC PDCP SDAP BAP

[R2-2206980](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2206980.zip) Retransmission SDU choice under double-no condition When T-PollRetransmit expiration PML discussion

=> Revised in [R2-2208689](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208689.zip)

[R2-2208689](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208689.zip) Correction on RLC retransmission SDU choice when T-PollRetransmit expiration Purple Mountain Laboratories discussion

#### 5.1.2.3 Other

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

## 6.5 NR IIoT URLLC

(NR\_IIOT\_URLLC\_enh-Core; leading WG: RAN2; REL-17; WID: RP-210854)

Tdoc Limitation: 3 tdocs

### 6.5.1 Organizational

Including LSs, rapporteur correction CR, and any rapporteur inputs (e.g. from ASN.1 ad-hoc meeting).

[R2-2206922](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2206922.zip) LS on Rel-17 URLLC/IIoT RRC parameter updates (R1-2205507; contact: Nokia) RAN1 LS in Rel-17 NR\_IIOT\_URLLC\_enh To:RAN2

=> Noted

[R2-2208012](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208012.zip) Correction on PUCCH sSCell for TDD Nokia, Nokia Shanghai Bell, Ericsson, Qualcomm, Samsung, ZTE Corporation CR Rel-17 38.300 17.1.0 0524 - F NR\_IIOT\_URLLC\_enh-Core

- LG and Mediatek explains that if we say in addition may cause confusion that the UE may transmit at the same time. Nokia explain that it is clear with the next sentence.

=> The CR is agreed

### 6.5.2 Control Plane

A single CR 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

[R2-2208060](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208060.zip) Correction to the field description of usage-pdc Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3351 - F NR\_IIOT\_URLLC\_enh-Core

=> The CR is agreed

[R2-2208556](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208556.zip) CR on 38.331 for field description of PUCCH-Config for PUCCH Carrier Switch ZTE Corporation,Sanechips, Nokia, Nokia Shanghai Bell, Ericsson, Samsung, Qualcomm CR Rel-17 38.331 17.1.0 3440 - F NR\_IIOT\_URLLC\_enh-Core

=> The CR is agreed

### 6.5.3 User Plane

A single CR 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

R2-2208926 UP Issue summary Samsung

Proposal 1. RAN2 to discuss: When a CG-PUSCH transmission is cancelled by a DG-PUSCH without UL-SCH (i.e. MAC PDU is not delivered to PHY) in Rel-17,

- Option 1. de-prioritization relies on existing Rel-16 LCH-based Prioritization. The CG is not considered as a de-prioritized uplink grant. (no specification change).

- Option 2. the uplink grant associated with the cancelled CG is considered as a de-prioritized grant.

=> de-prioritization relies on existing Rel-16 LCH-based Prioritization. The CG is not considered as a de-prioritized uplink grant. (no specification change)

*Proposal 2. RAN2 to discuss the following options for simultaneous transmission of SR and PUSCH over different PUCCH groups:*

*- Option 1. All Rel-17 UEs mandatorily supports simultaneous transmissions of overlapping SR and PUSCH over different PUCCH groups.*

*- Option 2. Define a capability and RRC configuration parameter of simultaneous transmissions of overlapping SR and PUSCH over different PUCCH groups.*

*- Option 3. Rel-17 MAC does not allow simultaneous transmission of SR and UL-SCH over different PUCCH groups. (No specification change)*

- Mediatek thinks that we should down select between option 1 and 2, exclude option 3. Samsung thinks we can exclude option 3. Nokia thinks that even with option 1 we may need some explicit configuration and the question is whether we have a capability or not. Samsung agrees and are fine with RRC parameters. Oppo agrees to exclude 3

=> Option 3 is excluded and continue discussion on option 1 and 2 (including RRC explicit config and UE capability discussion for option 1).

[R2-2207432](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207432.zip) Discussion on MAC layer operation at PUSCH cancellation Apple discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2207433](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207433.zip) Draft CR for MAC layer operation at PUSCH cancellation Apple, Ericsson CR Rel-17 38.321 17.1.0 1316 - F NR\_IIOT\_URLLC\_enh-Core

[R2-2207506](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207506.zip) Consideration on CG-PUSCH cancellation for UCI -only case CATT discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2207507](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207507.zip) Simultaneous transmission of SR and PUSCH over different PUCCH groups CATT CR Rel-17 38.321 17.1.0 1321 - F NR\_IIOT\_URLLC\_enh-Core

[R2-2207796](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207796.zip) Issue on a CG transmission cancelled by a DG without UL-SCH OPPO discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2208013](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208013.zip) MAC impact on PHY prioritization Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2208014](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208014.zip) Correction on TB generated for UCI multiplexing Nokia, Nokia Shanghai Bell CR Rel-17 38.321 17.1.0 1361 - F NR\_IIOT\_URLLC\_enh-Core

[R2-2208061](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208061.zip) Discussion on deprioritized CG-PUSCH with UCI only TB Huawei, HiSilicon discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2208062](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208062.zip) Discussion on simultaneous transmissions of SR and PUSCH Huawei, HiSilicon discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2208122](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208122.zip) Open Issues in IIOT UP Qualcomm Incorporated discussion Rel-17

[R2-2208355](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208355.zip) Discussion on SR error handling on PUCCH Cells ASUSTeK discussion Rel-16 38.321 NR\_IIOT\_URLLC\_enh-Core

[R2-2208588](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208588.zip) Correction for De-prioritizatin of Overlapping Resources Samsung draftCR Rel-17 38.321 17.1.0 F NR\_IIOT\_URLLC\_enh-Core

Moved from TEI17

[R2-2207792](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207792.zip) Clarification on SR and PUSCH collision-Alt1 OPPO, Samsung CR Rel-17 38.321 17.1.0 1341 - F TEI17

[R2-2207793](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207793.zip) Clarification on SR and PUSCH collision-Alt2 OPPO, Samsung CR Rel-17 38.321 17.1.0 1342 - F TEI17

[R2-2207794](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207794.zip) Clarification on SR and PUSCH collision-Alt2 OPPO, Samsung CR Rel-17 38.331 17.1.0 3315 - F TEI17

[R2-2207795](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207795.zip) Clarification on SR and PUSCH collision-Alt2 OPPO, Samsung CR Rel-17 38.306 17.1.0 0778 - F TEI17

## 6.6 Small Data enhancements

(NR\_SmallData\_INACTIVE-Core; leading WG: RAN2; REL-17; WID: RP-212594)

Tdoc Limitation: 3 tdocs

### 6.6.1 Organizational

Including LSs, rapporteur correction CR and any rapporteur inputs (e.g. from ASN.1 ad-hoc meeting).

[R2-2206907](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2206907.zip) Reply LS on Small Data Transmission (C1-224149; contact: Apple) CT1 LS in Rel-17 NR\_SmallData\_INACTIVE-Core To:RAN2

=> Noted

[R2-2206931](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2206931.zip) LS on transferring SDT configuration and SRS positioning Inactive configuration from DU to CU (R3-223955; contact: Google) RAN3 LS in Rel-17 NR\_SmallData\_INACTIVE-Core, NR\_pos\_enh To:RAN2

=> Noted

=> Response moved to email discussion 311

Moved to email discussion

[R2-2208596](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208596.zip) Discussion on RRC IEs in the RAN3 specification Google Inc. discussion Rel-17

[R2-2207120](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207120.zip) Response to RAN3 LS on SDT containers for F1-AP Intel Corporation discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2208072](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208072.zip) On transferring SDT configuration and SRS positioning Inactive configuration from DU to CU

[R2-2206953](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2206953.zip) Reply LS on TA validation for CG-SDT (R4-2211122; contact: ZTE) RAN4 LS in Rel-17 NR\_SmallData\_INACTIVE-Core To:RAN2

- LG thinks that RAN4 misunderstood the RAN2 agreement and we should clarify it in the response. ZTE thinks that all cases should be covered by the release but can check. LG explains that they only consider the case from Connected in Inactive and should add the inactive place. Huawei agrees with LG but points out that RAN4 is still discussing this and haven’t yet agreed. LG points out that RAN2 already agreed and RAN4 should incorporate.

=> Include clarification on RAN2 agreement INACTIVE state

=> Noted

[R2-2207976](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207976.zip) draft reply LS on TA validation for CG-SDT ZTE Corporation, Sanechips LS out To:RAN4

=> Moved to email discussion 312

[R2-2207900](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207900.zip) Corrections on SDT Nokia, Nokia Shanghai Bell, Samsung CR Rel-17 38.300 17.1.0 0519 - F NR\_SmallData\_INACTIVE-Core

=> remove the change in bullet 8 “The receiving gNB sends the *RRCRelease* message including suspend indication to the UE”

- Vivo thinks we should change direct to keeps in inactive. Vodafone, ZTE, and Intel prefer Nokia wording.

=> The CR is agreed in R2-2208911 with the change above

[R2-2207928](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207928.zip) Editor's correction to MAC spec for Small Data Transmission Huawei, HiSilicon CR Rel-17 38.321 17.1.0 1357 - F NR\_SmallData\_INACTIVE-Core

=> use as baseline for email discussion CR

### 6.6.2 User plane common aspects

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

*2-stepRACH during CG-SDT*

[R2-2207004](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207004 .zip) Issues for RA during CG-SDT procedure Samsung Electronics Co., Ltd     discussion Rel-17    NR\_SmallData\_INACTIVE-Core

[R2-2207001](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207001.zip) cg-SDT-TimeAlignmentTimer Handling Samsung Electronics Co., Ltd discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2207359](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207359 .zip) cg-SDT-TimeAlignmentTimer maintenance during 2-step RA   Langbo   CR  Rel-17 38.321    17.1.0     1311       -      F NR\_SmallData\_INACTIVE-Core

[R2-2207360](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207360 .zip) cg-SDT-TimeAlignmentTimer handling for RA-SDT Langbo   CR  Rel-17    38.321 17.1.0     1312       -      F NR\_SmallData\_INACTIVE-Core

*LCH-restriction for CG-SDT*

[R2-2207901](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207901 .zip) LCH restrictions at SDT mode selection Nokia, Nokia Shanghai Bell, Ericsson, Huawei, HiSilicon, LGE CR  Rel-17    38.321 17.1.0     1351       -      F NR\_SmallData\_INACTIVE-Core

- InterDigital thinks it is a good clarification but is wondering why the network would configure it as False. Nokia explains that the configuration is for each logical channel so we can set it. ZTE, Vivo, NEC agrees with InterDigital that the network should avoid this configuration.

- ZTE thinks that the optimization is not very ideal.

- Lenovo also thinks that if it configures CG resources then it should configure everything else appropriately and should be handled by NW configuration. The assumption is that NW is aware of the data traffic and periodicity as it must configure CG resources and periodicity accordingly. Samsung also has a similar view and we have discussed this in the past.

- Qualcomm thinks that we can maybe capture in the field description that the network configures it consistently. And if we want to go with mix mode then option A can make sense. ZTE doesn’t think the field description needs any clarification.

- Ericsson, Huawei and Sony agrees with Nokia.

- Samsung, for CG-SDT, even if DRBs do not use CG, CG is used for CCCH and DGs are used for DRBs

- LG and Lenovo think that the CR is useful.

- CATT also thinks that there is no issue, CG resource is configured and allowed for all the logical channel for SDT Bearers. Then no issue here.

=> Continue by email discussion to see if companies can support and which option should be supported.

[R2-2208117](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208117 .zip) LCH restrictions for CG-SDT       Ericsson discussion     Rel-17 NR\_SmallData\_INACTIVE-Core

=> Noted

*cg-SDT-TAT maintenance after receiving TAC MAC CE*

[R2-2207930](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207930 .zip) TAT maintenance for CG-SDT when receiving TAC MAC CE Huawei, Ericsson, HiSilicon, Nokia, Nokia Shanghai Bell, ZTE corporation    discussion     Rel-17 NR\_SmallData\_INACTIVE-Core

- Lenovo supports the proposal, Intel, QC, CATT, Apple, Oppo

- LG explains that we discussed this several times and we don’t see any new argument. InterDigital agrees with LG. Huawei thinks that there was some confusion before.

- Intel asks which of the stored configurations are used and last meeting the assumption was that we are using everything stored.

=> Move to email discussion

*CG-SDT retransmission on different CG configuration*

[R2-2207902](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207902 .zip) MAC procedure issues Nokia, Nokia Shanghai Bell CR  Rel-17    38.321    17.1.0 1352       -      F NR\_SmallData\_INACTIVE-Core

*To discuss whether it is allowed to use another CG configuration for CG-SDT retransmission different from the CG config used for initial transmission.*

To be discussed over email

[R2-2207416](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207416.zip) Analysis on remaining issues for SDT CATT discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2207571](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207571.zip) Correction on SSB selection for CG-SDT LG Electronics Inc. discussion NR\_SmallData\_INACTIVE-Core

[R2-2207572](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207572.zip) CR for correction on SSB selection for CG-SDT LG Electronics Inc. CR Rel-17 38.321 17.1.0 1325 - F NR\_SmallData\_INACTIVE-Core

[R2-2207573](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207573.zip) Clarification of Bj increment LG Electronics Inc. discussion NR\_SmallData\_INACTIVE-Core

[R2-2207815](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207815.zip) Correction on the stored RSRP for TA validation Xiaomi draftCR Rel-17 38.321 17.1.0 F NR\_SmallData\_INACTIVE-Core

[R2-2207906](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207906.zip) User plane issues for SDT NEC discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2207929](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207929.zip) Text Proposal for RSRP-based TA validation Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2208266](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208266.zip) Correction on CG-SDT Transmisson vivo CR Rel-17 38.321 17.1.0 1377 - F NR\_SmallData\_INACTIVE-Core Late

[R2-2208356](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208356.zip) Correction on SR delay timer ASUSTeK discussion Rel-16 NR\_SmallData\_INACTIVE-Core

[R2-2208660](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208660.zip) Clarification on uci-onPUSCH for CG-SDT vivo CR Rel-17 38.331 17.1.0 3462 - F NR\_SmallData\_INACTIVE-Core

### 6.6.3 Control plane common aspects

A single CR with miscelaneous corrections is encouraged. Small editorial corrections should be sent directly to rapporteur.

Big critical issues can be discussed in a contribution with CR in the appendix of the contribution

T319 delayed start

[R2-2207907](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207907.zip) Issues due to delay of the start of T319a NEC discussion Rel-17 NR\_SmallData\_INACTIVE-Core

*Proposal RAN2 need to update the “while T319a is running” and “if T319a is not running” in TS 38.331, for example by changing them to “while SDT is being performed” and “if SDT is not being performed” respectively. The proposed changes to TS38.331 is provided in Annex.*

- Nokia supports the CR

- Intel thinks we should also treat Samsung and it seems a bit odd we are changing legacy behavior.

- ZTE thinks the problem is valid but also thinks we can consider language and we can maybe add a NOTE

- LG thinks that only issue when RA-SDT is starting. NEC thinks it is also possible for CG case.

- Nokia explains that it is specified also in MAC that "SDT is initiated", maybe we could align with that.

=> Include the possible solution and new wording in CP email discussion.

UDC for SDT moved from 6.6.3

[R2-2208640](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208640.zip) Discussion on UDC continuity in SDT China Telecom discussion

- LG thinks that SDT is mainly for small data and UDC is typically compression for large data. We should make SDT simple and not support. Huawei agrees with LG, and in addition UDC is usually useful for repetitive data and it is an optimization. Apple, Ericsson, agrees with LG. CATT thinks we should support UDC and the packet size should be reduced with UDC especially for CG SDT.

=> The proposal is not agreed

Not treated

[R2-2208655](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208655.zip) CR for TS38.300 on Support of UDC in SDT China Telecom CR Rel-17 38.300 17.1.0 0545 - B NR\_SmallData\_INACTIVE-Core

[R2-2208656](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208656.zip) CR for TS38.331 on Support of UDC in SDT China Telecom CR Rel-17 38.331 17.1.0 3461 - B NR\_SmallData\_INACTIVE-Core

Move to email discussion

[R2-2207003](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207003.zip) T319a synchronisation issue Samsung Electronics Co., Ltd discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2207417](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207417.zip) Handling of sdt-Config upon reception of RRCRelease message CATT discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2207418](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207418.zip) PDCP Re-establishment for SRB(s) upon initiation of SDT CATT discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2207907](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207907.zip) Issues due to delay of the start of T319a NEC discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2207965](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207965.zip) UAC for non-SDT initiation during SDT Google Inc. CR Rel-17 38.331 17.1.0 3337 - F NR\_SmallData\_INACTIVE-Core

[R2-2207977](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207977.zip) RRC corrections for SDT ZTE Corporation, Sanechips CR Rel-17 38.331 17.1.0 3340 - F NR\_SmallData\_INACTIVE-Core

[R2-2207988](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207988.zip) ROHC continuity and initial BWP related corrections Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2208130](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208130.zip) BWP for CG-SDT Ericsson discussion Rel-17 38.331 NR\_SmallData\_INACTIVE-Core

[R2-2208218](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208218.zip) RRC state preference during SDT procedure Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2208269](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208269.zip) Correction on SRB1 Handling in SDT vivo CR Rel-17 38.331 17.1.0 3393 - F NR\_SmallData\_INACTIVE-Core

[R2-2208357](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208357.zip) Correction on T319a ASUSTeK discussion Rel-16 NR\_SmallData\_INACTIVE-Core

## 6.18 RACH indication and partitioning

Tdoc Limitation: 2 tdocs

Expected to cover WIs SDT, CovEnh, RedCap, RAN slicing. RA specific aspects from the different WI should be covered in this AI given the RA experts are all there.

### 6.18.1 Common signalling framework

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

Move to email discussion

[R2-2207679](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207679.zip) Miscellaneous corrections to slice-specific RACH configuration Spreadtrum Communications discussion Rel-17

[R2-2207820](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207820.zip) Correction on TS 38 331 for RACH common CATT CR Rel-17 38.331 17.1.0 3317 - F NR\_cov\_enh-Core, NR\_slice-Core, NR\_SmallData\_INACTIVE-Core, NR\_redcap-Core

[R2-2207981](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207981.zip) Correction on startPreambleForThisPartition ZTE Corporation, Sanechips, Ericsson CR Rel-17 38.331 17.1.0 3341 - F NR\_redcap-Core

[R2-2207982](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207982.zip) Configuration of preambles for feature combination ZTE Corporation, Sanechips discussion

[R2-2207989](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207989.zip) RRC corrections to common RACH framework Huawei, HiSilicon draftCR Rel-17 38.331 17.1.0 NR\_SmallData\_INACTIVE-Core, NR\_slice-Core, NR\_redcap-Core, NR\_cov\_enh-Core

[R2-2207997](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207997.zip) On the number of RACH partitions MediaTek Inc. discussion Rel-17 NR\_cov\_enh-Core, NR\_slice-Core, NR\_SmallData\_INACTIVE-Core, NR\_redcap-Core

[R2-2208240](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208240.zip) Miscellaneous corrections to common signalling for RACH partitioning Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.1.0 3389 - F NR\_SmallData\_INACTIVE-Core, NR\_cov\_enh-Core, NR\_redcap-Core, NR\_slice-Core

[R2-2208399](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208399.zip) Correction on Feature Combination LG Electronics Inc. CR Rel-17 38.331 17.1.0 3415 - F NR\_SmallData\_INACTIVE-Core, NR\_slice-Core, NR\_redcap-Core, NR\_cov\_enh-Core

[R2-2208910](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208910.zip) Correction on the featurePriorities Huawei, HiSilicon discussion Rel-17

### 6.18.2 Common aspects of RACH procedure

A single CR 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

Move to email discussion

[R2-2207905](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207905.zip) UL carrier selection for RA-SDT Nokia, Nokia Shanghai Bell CR Rel-17 38.321 17.1.0 1353 - F NR\_SmallData\_INACTIVE-Core

[R2-2207990](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207990.zip) MAC correction to the RACH partitioning Huawei, HiSilicon draftCR Rel-17 38.321 17.1.0 NR\_SmallData\_INACTIVE-Core, NR\_slice-Core, NR\_redcap-Core, NR\_cov\_enh-Core

[R2-2208131](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208131.zip) Correction to CFRA with additionalRACH-Configs Ericsson discussion Rel-17 NR\_redcap-Core, NR\_SmallData\_INACTIVE-Core, NR\_cov\_enh-Core, NR\_slice-Core

[R2-2208132](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208132.zip) Correction to CFRA with additionalRACH-Configs Ericsson CR Rel-17 38.321 17.1.0 1372 - F NR\_redcap-Core, NR\_SmallData\_INACTIVE-Core, NR\_cov\_enh-Core, NR\_slice-Core

[R2-2208400](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208400.zip) Correction on fallback cases from CFRA to CBRA in CE-only BWP LG Electronics Inc. discussion Rel-17 NR\_SmallData\_INACTIVE-Core, NR\_slice-Core, NR\_redcap-Core, NR\_cov\_enh-Core

[R2-2208614](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208614.zip) 38.321 CR Correction on the provision of the feature applicability for RACH Beijing Xiaomi Software Tech draftCR Rel-17 38.321 17.1.0 F NR\_SmallData\_INACTIVE-Core, NR\_cov\_enh-Core, NR\_redcap-Core, NR\_slice-Core

[R2-2208662](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208662.zip) Correction on RO Selection with RA Partitioning vivo CR Rel-17 38.321 17.1.0 1398 - F NR\_SmallData\_INACTIVE-Core, NR\_cov\_enh-Core, NR\_redcap-Core, NR\_slice-Core

# 8 Rel-18

## 8.3 Network energy savings for NR

(xx-Core; leading WG: RAN1; REL-18; WID: RP-213554)

Time budget: 1 TU

Tdoc Limitation: 2 tdocs

### 8.3.1 Organizational

*LS, workplan, etc*

[R2-2208339](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208339.zip) Work plan for NR network energy savings Huawei Work Plan Rel-18 FS\_Netw\_Energy\_NR

[R2-2208340](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208340.zip) TR 38.864 skeleton for study on network energy savings for NR Huawei discussion Rel-18 FS\_Netw\_Energy\_NR

[R2-2208341](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208341.zip) General consideration of RAN2 study Huawei discussion Rel-18 FS\_Netw\_Energy\_NR

### 8.3.2 gNB and UE supporting techniques

*Contributions should focus on how to achieve more efficient operation dynamically and/or semi-statically and finer granularity adaptation of transmissions and/or receptions in one or more of network energy saving techniques in time, frequency, spatial, and power domains, with potential support/feedback from UE, and potential UE assistance information*

[R2-2208431](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208431.zip) Discussion on the technical directions for network energy saving CMCC discussion Rel-18

Proposal 1: Spatial and power domain energy saving need to be studied in RAN1 first, and the RAN2 impacts can be studied after RAN1 make further progress. RAN2 can firstly study on the time domain and frequency domain techniques.

Proposal 2: RAN2 is kindly asked to study the UE behavior for the carriers with or without SSB/SIB/paging, e.g., whether UE is allowed to receiving SSB/SIB/paging on the anchor carrier, while perform random access on either anchor carrier or non-anchor carriers, similar as NB-IoT.

Proposal 3: RAN2 is kindly asked to study the UE impact if the transmission period of SSB/SIB is increased. Backward compatible issue needs to be considered.

Proposal 4: RAN2 is kindly asked to study the scenario and mechanism for on demand SSB/SIB transmission.

Observation 1: gNB DTX can help reducing the always on signal transmission, such as SSB/SIB transmission and other period RS transmission, and help UE power saving.

Proposal 5: RAN2 is kindly asked to further study on gNB DTX and potential UE impacts.

[R2-2207037](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207037.zip) Discussion on NW energy saving KDDI Corporation discussion

[R2-2207115](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207115.zip) Efficient operation of adaptation for network energy saving Intel Corporation discussion Rel-18 FS\_Netw\_Energy\_NR

[R2-2208297](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208297.zip) Network Energy savings - UE grouping for efficient signaling Rakuten Mobile, Inc discussion Rel-18

[R2-2207246](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207246.zip) Time domain NES techniques InterDigital discussion Rel-18 FS\_Netw\_Energy\_NR

[R2-2208120](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208120.zip) Network Energy Savings Techniques Qualcomm Incorporated discussion Rel-18

[R2-2207424](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207424.zip) On-demand measurement for network energy saving Apple discussion Rel-18 FS\_Netw\_Energy\_NR

[R2-2208606](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208606.zip) Coexistence considerations in network energy saving MediaTek Inc. discussion Rel-18 FS\_Netw\_Energy\_NR

[R2-2207546](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207546.zip) NW energy saving in IDLE Nokia, Nokia Shanghai Bell discussion Rel-18 FS\_Netw\_Energy\_NR

[R2-2207414](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207414.zip) Efficient PCell and SCell handling for network energy saving Fujitsu discussion Rel-18 FS\_Netw\_Energy\_NR

[R2-2208343](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208343.zip) Discussion on network energy saving techniques for multi-carrier case Huawei, HiSilicon, China Unicom, Deutsche Telekom discussion Rel-18 FS\_Netw\_Energy\_NR

[R2-2207786](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207786.zip) discussions on time domain techniques for network energy saving vivo discussion Rel-18

[R2-2207799](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207799.zip) Discussion on network energy savings OPPO discussion Rel-18 FS\_Netw\_Energy\_NR

[R2-2208342](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208342.zip) Discussion on network energy saving techniques for single carrier Huawei, HiSilicon, Deutsche Telekom discussion Rel-18 FS\_Netw\_Energy\_NR

[R2-2207960](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207960.zip) Alignment of UE and Network Energy Saving Fraunhofer IIS, Fraunhofer HHI discussion Rel-18

[R2-2208593](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208593.zip) Network Energy Saving (NES) Techniques Samsung discussion Rel-18

[R2-2208331](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208331.zip) Techniques in various domains and UE assistance information for network energy saving ZTE corporation, Sanechips discussion Rel-18

UE assistance information

[R2-2207512](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207512.zip) Consideration on UE Assistance Information CATT discussion Rel-18 FS\_Netw\_Energy\_NR

[R2-2208026](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208026.zip) Assistance information from the UE for NW energy savings Ericsson discussion

[R2-2207116](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207116.zip) Additional UE assistance information and UE feedback Intel Corporation discussion Rel-18 FS\_Netw\_Energy\_NR

[R2-2207293](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207293.zip) Assistance information to support choice of NES configuration NEC Telecom MODUS Ltd. Discussion

[R2-2208592](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208592.zip) Feedback and Assistance Information for NES Samsung discussion Rel-18

[R2-2207247](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207247.zip) Frequency domain and UE assistance NES techniques InterDigital discussion Rel-18 FS\_Netw\_Energy\_NR

[R2-2207292](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207292.zip) Finer granularity configuration for NES NEC Telecom MODUS Ltd. discussion

[R2-2207406](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207406.zip) Consideration on network energy saving Fujitsu discussion Rel-18 FS\_Netw\_Energy\_NR

[R2-2207423](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207423.zip) Initial discussion on RAN2 work of Network energy saving Apple discussion Rel-18 FS\_Netw\_Energy\_NR

[R2-2207511](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207511.zip) Network energy savings: issues for investigation in RAN2 CATT discussion Rel-18 FS\_Netw\_Energy\_NR

[R2-2207545](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207545.zip) NW energy saving in CONNECTED Nokia, Nokia Shanghai Bell discussion Rel-18 FS\_Netw\_Energy\_NR

[R2-2207787](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207787.zip) discussion on frequency domain and UE-assisted Network Energy saving techniques vivo discussion Rel-18

[R2-2207800](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207800.zip) Discussion on the UE assistance information OPPO discussion Rel-18 FS\_Netw\_Energy\_NR

[R2-2207919](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207919.zip) Discussion on supporting of network energy savings for NR Lenovo discussion Rel-18 FS\_Netw\_Energy\_NR

[R2-2207920](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207920.zip) Discussion on the state transition in NES Lenovo discussion Rel-18 FS\_Netw\_Energy\_NR

[R2-2208031](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208031.zip) Miscellaneous mechanisms for network energy savings Ericsson discussion

[R2-2208233](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208233.zip) gNB operation for NES ETRI discussion

[R2-2208330](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208330.zip) Supporting access via assistant cell for network energy saving ZTE corporation, Sanechips discussion Rel-18

[R2-2208432](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208432.zip) Analysis on power consumption in base station CMCC discussion Rel-18

[R2-2208573](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208573.zip) Energy saving on system information transmission Xiaomi discussion Rel-18 FS\_Netw\_Energy\_NR

## 8.8 NR support for UAV

(xx-Core; leading WG: RAN1; REL-18; WID: RP-213600)

Time budget: 0.5 TU

Tdoc Limitation: 2

### 8.8.1 Organizational

[R2-2207328](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207328.zip) Uncrewed Aerial Vehicles in Rel-18 - workplan Nokia, Nokia Shanghai Bell Work Plan Rel-18 NR\_UAV-Core

### 8.8.2 Measurement reporting

*Contributions should focus on enhancement to measurement reports, for example UE-triggered measurement report based on configured height thresholds, Reporting of height, location and speed in measurement report, Flight path reporting, Measurement reporting based on a configured number of cells (i.e. larger than one) fulfilling the triggering criteria simultaneously*

*Note: Work done in LTE is a starting point for this objective. NR-specific enhancements can be considered, if needed, while overall the LTE and NR solutions should be harmonized as much as possible.*

### 8.8.3 Subscription-based aerial-UE identification

Contributions should focus on signaling required to support subscription-based aerial-UE identification

*Note: Work done in LTE is a starting point for this objective. NR-specific enhancements can be considered, if needed, while overall the LTE and NR solutions should be harmonized as much as possible.*

### 8.8.4 UAV identification broadcast

*Study and specify, if needed, enhancements for UAV identification broadcast*

NOTE: This Agenda Item will not be treated in this meeting

[R2-2207076](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207076.zip) Consideration on measurement reporting of NR support for UAV DENSO CORPORATION discussion NR\_UAV-Core

[R2-2207154](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207154.zip) Considerations on Measurement Reports Enhancements NEC Europe Ltd discussion Rel-18 NR\_UAV-Core

[R2-2207194](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207194.zip) Discussion on NR support for UAV NTT DOCOMO, INC. discussion Rel-18

[R2-2207233](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207233.zip) Measurement Reports Enhancement for UAV OPPO discussion Rel-18

[R2-2207329](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207329.zip) On measurement reporting enhancements for UAVs - LTE baseline in NR framework Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_UAV-Core

[R2-2207518](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207518.zip) Measurement Reporting for NR UAV CATT discussion Rel-18 NR\_UAV-Core

[R2-2207601](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207601.zip) Discussion on measurement reporting enhancement for NR UAV vivo discussion Rel-18 NR\_UAV

[R2-2207602](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207602.zip) Discussion on flight path reporting for NR UAV vivo discussion Rel-18 NR\_UAV

[R2-2207624](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207624.zip) On measurement and reporting enhancements Ericsson discussion NR\_UAV-Core Revised

[R2-2207715](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207715.zip) measurement report enhancement for NR UAV Lenovo discussion Rel-18

[R2-2207836](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207836.zip) UAV measurement reporting Sony discussion Rel-18 NR\_UAV

[R2-2207925](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207925.zip) NR support for UAV first steps plus Inter RAT aspects Vodafone GmbH discussion Rel-18

[R2-2207935](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207935.zip) Discussion on measurement reporting in UAV Apple discussion Rel-18 NR\_UAV-Core

[R2-2208042](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208042.zip) On measurement and reporting enhancements Ericsson discussion NR\_UAV-Core [R2-2207624](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207624.zip)

[R2-2208098](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208098.zip) Measurement and reporting enhancements Qualcomm Incorporated discussion Rel-18 NR\_UAV-Core

[R2-2208099](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208099.zip) Mobility considerations and some performance results Qualcomm Incorporated discussion Rel-18 NR\_UAV-Core

[R2-2208250](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208250.zip) UAV support for NR Intel Corporation discussion Rel-18 NR\_UAV-Core

[R2-2208279](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208279.zip) Measurement reporting for UAV InterDigital discussion Rel-18 NR\_UAV-Core

[R2-2208335](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208335.zip) Measurement Report Enhancement LG Electronics Finland discussion

[R2-2208336](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208336.zip) Flight Path Information Enhancement LG Electronics Finland discussion

[R2-2208412](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208412.zip) Discussion on measurement reporting enhancements for NR UAV ZTE Corporation, Sanechips discussion Rel-18 NR\_UAV-Core

[R2-2208421](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208421.zip) Consideration on subscription-based UAV identification Huawei, HiSilicon discussion Rel-19 NR\_UAV-Core

[R2-2208445](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208445.zip) Consideration on Measurement Reporting for UAV CMCC discussion Rel-18 NR\_UAV-Core

[R2-2208469](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208469.zip) Discussion on measurement reporting for NR UAV Xiaomi discussion

[R2-2208608](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208608.zip) Discussion on enhancements on measurement reports for NR UAV Samsung Electronics Co., Ltd discussion Rel-18 NR\_UAV-Core

## 8.15 R18 Other

Misc Impacts from Other RAN WGs and TSGs (incl MC Enhancements). LS ins for Rel-18 topics that has no RAN WI.

Time budget: 0.5 TU

Tdoc Limitation: -

Low Latency

This topic is handled by UP breakout session (Diana)

[R2-2206963](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2206963  .zip)   LS on RAN feedback for low latency (S2-2201767; contact: Huawei)           SA2   LS in    Rel-18  FS\_5TRS\_URLLC         To:RAN2          Cc:RAN1, RAN3

[R2-2208134](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208134  .zip)   Discussion on RAN feedback for low latency         Ericsson           discussion   Rel-18

[R2-2208007](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208007  .zip)   Proposed response to SA2 LS [R2-2203930](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2203930.zip) on low latency Nokia, Nokia Shanghai Bell      discussion        Rel-18  FS\_5TRS\_URLLC

Moved from 3

[R2-2207043](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207043  .zip)   Draft reply LS on RAN feedback for low latency     Qualcomm Incorporated   discussion        Rel-18  FS\_NR\_XR\_enh

*Moved from 8.5.1*

[R2-2207768](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207768  .zip)   Consideration on meeting very low latency requirement in TDD      ZTE Corporation, Sanechips, China Southern Power Grid Co., Ltd         discussion   Rel-17  NR\_IIOT\_URLLC\_enh-Core      [R2-2205732](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2205732.zip)

Moved from 6.5.1

[R2-2207775](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2207775  .zip)   [DRAFT] Reply LS on RAN feedback for low latency          ZTE Corporation, Sanechips           LS out  Rel-17  NR\_IIOT\_URLLC\_enh-Core      [R2-2205734](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2205734  .zip) To:SA2 Cc:RAN3

Moved from 6.5.1

[R2-2208687](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208687.zip) Discussion on RAN feedback for low latency enquired by SA2 Huawei discussion Late

[R2-2208688](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_119-e\Docs\R2-2208688.zip) Draft reply LS on RAN feedback for low latency Huawei LS out Rel-18 FS\_5TRS\_URLLC To:SA2 Cc:RAN1, RAN3 Late