3GPP TSG-RAN WG2 Meeting #117 electronic [R2-2203514](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203514.zip)

Online, February 21 - March 3, 2022

Source: Session Chair (InterDigital)

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

**Email discussions:**

* [AT117-e][500] Organizational Diana – URLLC/IIoT, Small data]

Scope:

* + - Share plans for the meetings and list of ongoing email discussions for the sessions related to URLLC/IIoT, Small data and NR-U, 2-step RACH, and power saving
    - Share meetings notes and agreements for review and endorsement
* [AT117-e][501][Sdata] CP additional open issues (Samsung)

Remaining CP open issues

Deadline: Proposals by rapporteur by Friday (intermediary deadlines for comments to be set by rapporteur)

* [AT117-e][502][Sdata] UP additional open issues (InterDigital)

Remaining UP open issues

Deadline: Proposals by rapporteur by Friday (intermediary deadlines for comments to be set by rapporteur)

* [AT117-e][503][IIoT] Tsynch additional open issues (Qualcomm)

Remaining Tsynch open issues

Deadline: Proposals by rapporteur by Friday (intermediary deadlines for comments to be set by rapporteur)

* [AT117-e][504][IIoT] QoS additional open issues (Nokia)

Remaining Tsynch open issues

Deadline: Proposals by rapporteur by Friday (intermediary deadlines for comments to be set by rapporteur)

* [AT117-e][505][RA Part] CP additional open issues (Huawei)

Remaining CP open issues

Deadline: Proposals by rapporteur by Friday (intermediary deadlines for comments to be set by rapporteur)

* [AT117-e][506][RA Part] UP additional open issues (Intel)

Remaining UP open issues

Deadline: Proposals by rapporteur by Friday (intermediary deadlines for comments to be set by rapporteur)

## 8.5 NR IIoT URLLC

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

Time budget: 1 TU

Tdoc Limitation: 2 tdocs

### 8.5.1 Organizational

Including open issues for control plane and user plane [POST116bis-e][512][IIoT] UP open issues (Samsung) and [POST116bis-e][513][IIoT] CP open issues (Ericsson)

NOTE: NO contributions on these critical open issues are expected

[R2-2202464](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202464.zip) Draft 38.306 CR for Rel-17 NR IIoT URLLC UE capabilities Intel Corporation draftCR Rel-17 38.306 16.7.0 B NR\_IIOT\_URLLC\_enh-Core

[R2-2202465](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202465.zip) Draft 38.331 CR for Rel-17 NR IIoT URLLC UE capabilities Intel Corporation draftCR Rel-17 38.331 16.7.0 B NR\_IIOT\_URLLC\_enh-Core

[R2-2202522](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202522.zip) RAN1 feature impact on intra-UE prioritization in MAC Apple discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2202682](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202682.zip) Introduction of enhanced IIoT&URLLC support for NR Samsung CR Rel-17 38.321 16.7.0 1200 - B NR\_IIOT\_URLLC\_enh-Core

[R2-2203196](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203196.zip) Introduction of Rel-17 IIoT/URLLC to TS 38.300 Nokia, Nokia Shanghai Bell CR Rel-17 38.300 16.8.0 0416 - B NR\_IIOT\_URLLC\_enh

[R2-2202325](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202325.zip) Introduction of enhanced IIoT&URLLC support for NR Ericsson CR Rel-17 38.331 16.7.0 2887 - B NR\_IIOT\_URLLC\_enh

[R2-2203291](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203291.zip) Propagation Delay Compensation for TSN Qualcomm Incorporated discussion Rel-17 Withdrawn

[R2-2202686](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202686.zip) Report of [POST116bis-e][512][IIoT] UP open issue Samsung discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core Late

[R2-2203302](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203302.zip) Summary of [POST116bis-e][513][IIoT] CP open issues (Ericsson) Ericsson discussion NR\_IIOT\_URLLC\_enh Late

### 8.5.2 Enhancements for support of time synchronization

RAN1 progress if any should be taken into account.

Contributions should only be focused on important issues not included in open issues email discussion.

[R2-2202182](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202182.zip) RE: LS on Time Synchronization IEEE 1588 WG LS in To:RAN, SA Cc:RAN2

[R2-2202437](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202437.zip) Remaining issues on time synchronization enhancement OPPO discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2202580](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202580.zip) Left issues for time synchronization Lenovo, Motorola Mobility discussion Rel-17

[R2-2202708](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202708.zip) Discussion on remaining issues for accurate time synchronization Huawei, HiSilicon discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2202728](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202728.zip) Remaining Issues on PDC Enhancement CMCC discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2202750](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202750.zip) Remaining issues of time synchronization ZTE Corporation, Sanechips, China Southern Power Grid Co., Ltd discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2202784](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202784.zip) Simplifying the PRS procedure forRemaining Issues of RTT-based PDC CATT discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2202894](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202894.zip) Remaining issues for PDC vivo discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2203197](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203197.zip) Propagation Delay Compensation signalling Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_IIOT\_URLLC\_enh

[R2-2203303](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203303.zip) MAC CE update for SRS Spatial Relation Indication Ericsson discussion NR\_IIOT\_URLLC\_enh

[R2-2203461](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203461.zip) Propagation Delay Compensation for TSN Qualcomm Incorporated discussion Rel-17

### 8.5.3 Uplink enhancements for URLLC in unlicensed controlled environments

Contributions should only be focused on important issues not included in open issues email discussion. Proposals related to DRX HARQ RTT timer for one-shot HARQ feedback for NR-U will be treated in in this AI taking into account R2 116-e agreement for [R2-2110948](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2110948.zip) and RAN1 agreements. The Rel-17 RAN1 enhancements one-shot request per HARQ process should be consistend with solution for Rel-16 NR-U where all HARQ processes are enabled.

[R2-2202444](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202444.zip) Discussion on the DRX impact of enhanced HARQ feedback and intra-UE prioritization Lenovo, Motorola Mobility discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2202946](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202946.zip) Configured grant mode switching for IIoT/URLLC in UCE III discussion NR\_IIOT\_URLLC\_enh-Core

[R2-2203294](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203294.zip) RAN2 impacts of RAN1 Agreements on Enhanced HARQ feedback Qualcomm Incorporated discussion

[R2-2203304](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203304.zip) Multi-TB scheduling in UCE Ericsson discussion NR\_IIOT\_URLLC\_enh

### 8.5.4 RAN enhancements based on new QoS

Contributions should only be focused on important issues NOT included in open issues email discussion.

[R2-2202283](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202283.zip) Analysis on N>1 Fujitsu discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core [R2-2200309](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2200309.zip)

[R2-2202284](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202284.zip) Survival Time Mode and Measurement Gap Fujitsu discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core [R2-2200310](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2200310.zip)

[R2-2202438](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202438.zip) Remaining issues on survival time OPPO discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2202445](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202445.zip) Remaining issues on the support of survival time Lenovo, Motorola Mobility discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2202523](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202523.zip) Remaining issues on RAN enhancements for new QoS Apple discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2202709](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202709.zip) Discussion about UE behaviours for Survival Time state operation Huawei, HiSilicon discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2202726](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202726.zip) Remaining Issues on QoS enhancement CMCC discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2202751](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202751.zip) N and combined Tx-side timer for IIoT QoS ZTE, Sanechips, China Southern Power Grid Co., Ltd, TCL Communication Ltd., vivo discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core [R2-2200704](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2200704.zip)

[R2-2202785](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202785.zip) On the support of N>1 for Survival Time solution CATT discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2202834](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202834.zip) Additional aspects on resource in Survival Time III discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2202895](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202895.zip) Discussion on Radio Resource for the duplicated legs in ST vivo discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2203125](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203125.zip) Remaining issues of survival time requirements Xiaomi Communications discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core [R2-2201375](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2201375.zip)

[R2-2203144](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203144.zip) Finalising Survival Time related enhancements Samsung Electronics GmbH discussion

[R2-2203198](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203198.zip) On Closure of Survival Time Objective Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_IIOT\_URLLC\_enh

[R2-2203460](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203460.zip) Remaining issues on the support of survival time InterDigital discussion Rel-18 NR\_IIOT\_URLLC\_enh-Core

## 8.6 Small Data enhancements

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

Time budget: 1.5 TU

Tdoc Limitation: 2 tdocs

### 8.6.1 Organizational

In coming LSs, rapporteur input for email discussions summaires etc (tdocs in this don’t count towards tdoc limit).

Inputs expected for 38.321 CR (Huawei), 38.331 CR (ZTE), 38.300 CR (Nokia)

Including [Post116-e][506][SDT] RRC running CR update (ZTE), [Post116-e][507][SDT] MAC running CR update (Huawei), and [Post116-e][508][SDT] Stage-2 running CR update (Nokia)

[R2-2202143](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202143.zip) Reply LS on the ROHC continuity for SDT (R3-221471; contact: Huawei) RAN3 LS in Rel-17 To:RAN2

[R2-2202144](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202144.zip) LS on handling of DL non-SDT during SDT procedure (R3-221472; contact: CATT) RAN3 LS in Rel-17 To:RAN2

[R2-2203722](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203722.zip) Reply LS on Security of Small data transmission (S3-220463; contact: Intel) SA3 LS in Rel-17 NR\_SmallData\_INACTIVE-Core To:RAN2 Cc:RAN3

[R2-2202594](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202594.zip) Running MAC CR for small data Huawei, HiSilicon draftCR Rel-17 38.321 16.7.0 B NR\_SmallData\_INACTIVE-Core Withdrawn

[R2-2202595](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202595.zip) Summary of [Post116-e][507][SDT] MAC running CR update (Huawei) Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core Withdrawn

[R2-2202612](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202612.zip) Summary of [POST116bis-e][510][Sdata] Running MAC CR Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core Late

CRs

[R2-2203279](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203279.zip) Stage-2 introduction of SDT Nokia, Nokia Shanghai Bell CR Rel-17 38.300 16.8.0 0357 6 B NR\_SmallData\_INACTIVE-Core [R2-2202014](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202014.zip)

[R2-2203296](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203296.zip) Introduction of SDT ZTE Corporation (rapporteur) CR Rel-17 38.331 16.7.0 2937 - B NR\_SmallData\_INACTIVE-Core Late

[R2-2202611](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202611.zip) Introduction of Small Data Transmission for MAC spec Huawei, HiSilicon CR Rel-17 38.321 16.7.0 1198 - B NR\_SmallData\_INACTIVE-Core Late

Capabilities

[R2-2202672](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202672.zip) UE capabilities for Rel-17 SDT Intel Corporation draftCR Rel-17 38.306 16.7.0 B NR\_SmallData\_INACTIVE-Core

[R2-2202673](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202673.zip) UE capabilities for Rel-17 SDT Intel Corporation draftCR Rel-17 38.331 16.7.0 B NR\_SmallData\_INACTIVE-Core

### 8.6.2 User plane common aspects

Including email discussion [POST116bis-e][510][Sdata] UP open issues (Huawei) – NO contributions on these issues.

Any other contributions should focus on important issues not covered by open issues email discussions. Issues that have been discussed and not agreed in the past should not be brought again, unless there is large support (i.e. large number of companies co-sourced contributions)

[R2-2202609](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202609.zip) Summary of [POST116bis-e][510][Sdata] UP open issues (Huawei) Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core Late

Issues that are potentially easy to be agreed

Proposal3: Downlink RSRP reference at the time of receiving RRCRelease with suependConfig for the RSRP-based TA validation is determined by the MO for the cell where the UE is released from RRC\_CONNECTED to RRC\_INACTIVE. (20/21)

Proposal6: Consider cg-SDT-TimeAlignmentTimer to be expired and perform the procedure in 5.2 (Maintenance of uplink time alignment) at MAC reset. FFS impacts for delta configuration. (18/21)

Proposal7: Fix the RV to be 0 for both the initial and retransmission of initial CG-SDT transmission.(19/21)

Proposal8: Adopt the same sdt-RSRP-ThresholdSSB-SUL used in MAC for uplink carrier selection for RA-SDT and CG-SDT. FFS relationship with RACH partitionining discussion and how to enable this in RRC configuration. (20/21)

Proposal10: UE triggers SDT failure when the number of preamble transmission in RA-SDT exceeds the threshold preambleTransMax. (20/21) FFS for RACH triggered during subsequent transmission for both CG-SDT and RA-SDT.

Issues that R2 needs to further discuss

Proposal1: R2 to downselect from the following two options for RA-SDT triggered when contention resolution is successful and ACK is sent for msg4/msgB if CG-SDT is configured

 Option 1: Consider CG-SDT-TAT as expired.

 Option 2: CG-SDT-TAT is restarted. FFS how to ensure that CG-SDT resources are not used after completion of RA-SDT in MAC spec.

Proposal2: UE does not stop the legacy TAT when contention resolution is successful for RACH triggered during CG-SDT. (14/21)

Proposal4: R2 to confirm that no new trigger is introduced for RACH due to CG-SDT SSB selection.

Proposal5: R2 to dicsuss whether UL new transmission scheduled by DG for a HARQ PID different from the one used for initial UL transmission can be an ACK for the initial transmission. (12/19)

Proposal9: R2 to downselect during online dicsusison

 Option1: Leave it to UE implementation that the old SRB data are not counted in the data volume calculation

 Option2: UE performs SDU discard at the reception of RRCRelease with SDT configuration

[R2-2202274](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202274.zip) Discussion on user plane issues of SDT OPPO discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2202342](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202342.zip) CG-SDT-TAT expiry handing during the CG-SDT procedure Samsung Electronics Co., Ltd discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2202446](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202446.zip) Remaining UP issues for SDT Lenovo, Motorola Mobility discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2202610](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202610.zip) Remaining issues for SDT user plane Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2202735](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202735.zip) Remaining issues of user plane aspects of SDT China Telecom discussion

[R2-2202959](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202959.zip) Remaining issues on UP aspects of SDT Qualcomm Incorporated discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2202983](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202983.zip) Remaining UP Issues on SDT Procedure vivo discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2203008](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203008.zip) Remaining user plane aspects of SDT NEC discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2203158](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203158.zip) User Plane Aspects for SDT Ericsson discussion Rel-17 NR\_MT\_SDT-Core Late

[R2-2203280](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203280.zip) UP and CG aspects for SDT Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2203458](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203458.zip) Remaining UP issues for SDT InterDigital discussion Rel-17 NR\_SmallData\_INACTIVE-Core

### 8.6.3 Control plane common aspects

Including email discussion [POST116bis-e][511][Sdata] CP open issues (ZTE) - NO contributions on these issues

Any other contributions should focus on important issues not covered by open issues email discussions. Issues that have been discussed and not agreed in the past should not be brought again, unless there is large support (i.e. large number of companies co-sourced contributions)

One co-sourced contributions and/or TPs on DCCH/CCCH solution will not count towards contribution limit.

[R2-2203300](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203300.zip) [POST116bis-e][511][Sdata] - CP open issue list summary ZTE Wistron Telecom AB report

=> Revised in [R2-2203716](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203716.zip)

[R2-2203716](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203716.zip) [POST116bis-e][511][Sdata] - CP open issue list summary ZTE Corporation (rapporteur) report Rel-17 NR\_SmallData\_INACTIVE-Core

Easy proposals for essential issues:

Proposal 1: When CG-TAT expires, MAC shall release the CG resources. RRC keeps the CG configuration (for delta signalling).

Proposal 2: Add a condition that RNAU is only initiated if Txxx (i.e. the new SDT timer) is not running

Proposal 3: The UE is not required to perform/log measurements during SDT

Proposal 4: The UE is not required to performIdle/inactive measurements in section 5.7.8 of RRC during SDT

Proposal 6: Delta signalling is based on the previous SDT configuration (i.e. only applicable to SDT operation and will be released when the UE moves to connected and hence delta configuration based on connected mode CG configuration is not supported).

Proposal 9: for ROHC continuity, update the running CR as follows:

“the cell for ROHC continuity is the PCell where the UE receives the RRCRelease message”

Proposals for discussion for essential issues:

Proposal 5: use the following values for SDT error detection timer (discuss together with P18)

t3XX ENUMERATED {ms100, ms200, ms300, ms400, ms600, ms1000, ms2000, ms3000, ms6000, ms10000, spare6, spare5, spare4, spare3, spare2, spare1}

Proposal 7: When SDT is initiated, RRC will indicate the selected carrier to MAC

|  |
| --- |
| Note: MAC will still perform carrier selection for this and indicate this to RRC which will just be informed for the RACH selection purpose by RRC. As below:  Timeline  Description automatically generated with low confidence |

Proposal 8: RLC failure handling needs to be added in RRC but Max RACH preamble transmission indication from lower layers leads to no response in RRC (same as legacy).

Proposal 10: UE supporting CG-SDT shall also support RA-SDT (10/4)

Proposal 11: RA-SDT is defined as an optional capability per UE without need for xDD and FRx differentiation

Discuss per UE vs per band

Proposal 12: CG-SDT is defined as an optional capability per UE without need for xDD and FRx differentiation

Proposal 13: Discuss whether separate capability is needed for SRB (i.e. for NAS messages)

Proposal 14: Discuss whether separate capability is needed for multiple CG-SDT configured grants

Proposal 15: Discuss the following options for RRCReject

Option 1: No change (i.e. EDT behaviour is followed)

If option 1 is agreed we can discuss whether we need a note that says: *“UE shall avoid a consecutive SDT procedures with a different payload but same security key”*

Option 2: RRCReject is not supported for SDT

Option 3: Release SDT configuration upon receiving RRCReject

Proposal 16: The following is used for sdt-DataVolumeThreshold

ENUMERATED {byte10, byte14, byte20, byte28, byte38, byte53, byte74, byte102, byte142, byte198, byte276, byte384, byte535, byte745, byte1038, byte1446}

Proposal 17: DataVolumeThreshold is configured only in SIB1

Proposal 18: Implement longer CG-SDT periodicity values similar to PUR and send an LS to RAN1 to check if this is okay.

**Proposals for enhancements (comeback after all essential issues are dealt with):**

Proposal 19: Discuss whether RAI should be introduced for SDT

Proposal 20: Discuss whether CG resource request message is supported for SDT

[R2-2202275](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202275.zip) Discussion on control plane issues of SDT OPPO discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2202556](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202556.zip) Control plane aspects of SDT Apple discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2202590](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202590.zip) Analysis on CP open issue of SDT Lenovo, Motorola Mobility discussion Rel-17

[R2-2202674](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202674.zip) Additional discussion on identified open CP issues Intel Corporation discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2202736](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202736.zip) Remaining issues of control plane aspects of SDT China Telecom discussion

[R2-2202805](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202805.zip) Handling of DL non-SDT during SDT CATT discussion Rel-17 NR\_SmallData\_INACTIVE-Core

=> Revised in [R2-2203529](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203529.zip)

[R2-2203529](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203529.zip) Handling of DL non-SDT during SDT without Anchor Relocation CATT, Huawei, HiSilicon, China Telecom, CMCC discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2202846](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202846.zip) Remaining issue on CS-RNTI configuration for CG-SDT ASUSTeK discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2202960](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202960.zip) Remaining issues on CP aspects of SDT Qualcomm Incorporated discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2202982](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202982.zip) Further Consideration on the Handling of non-SDT Data Arrival vivo discussion Rel-17 NR\_SmallData\_INACTIVE-Core [R2-2201441](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2201441.zip)

[R2-2203009](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203009.zip) Remaining control plane aspects of SDT NEC discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2203155](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203155.zip) CP aspects for SDT Ericsson discussion Rel-17 NR\_MT\_SDT-Core Late

[R2-2203299](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203299.zip) [POST116bis-e][511][Sdata] - Running CR comments summary ZTE Wistron Telecom AB report

[R2-2203337](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203337.zip) Control plane common aspects for SDT Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core Late

[R2-2203338](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203338.zip) CCCH based non-SDT data indication Huawei, HiSilicon draftCR Rel-17 38.331 16.7.0 NR\_SmallData\_INACTIVE-Core Late

=> Revised in [R2-2203520](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203520.zip)

[R2-2203520](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203520.zip) CCCH based non-SDT data indication Huawei, HiSilicon, InterDigital, LGE, ASUSTeK, Nokia, Nokia Shanghai Bell, Google, Rakuten Mobile, Fujitsu, NEC, Ericsson draftCR Rel-17 38.331 16.7.0 NR\_SmallData\_INACTIVE-Core [R2-2203338](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203338.zip) Late

[R2-2203353](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203353.zip) SDT control plane aspects Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SmallData\_INACTIVE

[R2-2203475](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203475.zip) Introduction of DCCH solution for non-SDT data arrival Intel Corporation, ZTE Corporation, Sanechips, Samsung, Xiaomi, MediaTek, Radisys, Reliance JIO, Qualcomm, CMCC, OPPO, Lenovo, Sony, Apple, CATT, AT&T draftCR Rel-17 38.331 16.7.0 NR\_SmallData\_INACTIVE-Core

=> Revised in [R2-2203528](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203528.zip)

[R2-2203528](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203528.zip) Introduction of DCCH solution for non-SDT data arrival Intel Corporation, ZTE Corporation, Sanechips, Samsung, Xiaomi, MediaTek, Radisys, Reliance JIO, Qualcomm, CMCC, OPPO, Lenovo, Sony, Apple, CATT, AT&T, T-Mobile, China Telecom draftCR Rel-17 38.331 16.7.0 NR\_SmallData\_INACTIVE-Core

## 8.18 RACH indication and partitioning

Time budget: Equivalent to 0.5-1 TU

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.

### 8.18.1 Common signalling framework

Including output of [POST116bis-e][513][IIoT] CP open issues (Ericsson) – NO contributions on these issues

Any other contributions should focus on important issues not covered by open issues email discussions.

[R2-2203357](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203357.zip) Report of [POST116bis-e][515][RA Part] CP open issues Ericsson report Rel-17 NR\_redcap-Core, NR\_slice-Core, NR\_cov\_enh2-Core, NR\_SmallData\_INACTIVE-Core Late

=> Revised in [R2-2203701](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203701.zip)

[R2-2203701](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203701.zip) Report of [POST116bis-e][515][RA Part] CP open issues Ericsson report Rel-17 NR\_redcap-Core, NR\_slice-Core, NR\_cov\_enh2-Core, NR\_SmallData\_INACTIVE-Core Late

Based on the discussion in phase 2 the following intermediate conclusions are proposed:

1. Use the current base line without the *FeatureCombination* in *RACHcommonConfig*.
2. Mapping between 2-step RA preambles and PUSCH resources for MsgA to be included in a Running CR update
3. As CE is agreed as part of feature combination, the inclusion in updated Running CR is kept with Editor’s note/FFS removed
4. Do not update Maximum number of additional RACH configurations in Running CR but agree as baseline [nrofSlices] \* 8 - 1
5. The current draft signalling for Slicing is kept for now, pending Slicing progress on details.
6. RAN2 to discuss the use and definition of spares and the number of spares vs an alternative of adding an optional “feature\_extension” to *FeatureCombinationIndication*.
7. No changes to the current RO to SSB mapping principle in Running CR.
8. A priority is configurable per feature.
9. If several partitions are available for more than one feature, the UE selects only between available partition(s) with the highest feature priority. Details FFS.

Additionally some companies would like to understand the introduction of the new configurable thresholds: *featureCombinationRSRP-ThresholdHigh , featureCombinationRSRP-ThresholdLow.*

In **R2-2203356** an attempt is made to clarify the intention and use of these. Pending this discussion, it is proposed to:

1. Discuss if signalling of thresholds are limited to in feature-specific signalling or if the combination of features should be considered.

In one comment, the use of AddMod list was suggested to be changed from current structure. Since *RACH-ConfigCommon* is used in both SIB and dedicated signaling RAN2 should discuss how to design the signalling structure. One alternative is to resolve in field description, e.g. "when included in *ServingCellConfigCommonSIB*" and "when included in *ServinfCellConfigCommon*". It is proposed to **resolve this during the CR development** together with other details like naming and other**.**

In another comment, it was pointed out that the search space specific to additional RACH partition is missing (SDT).

1. Include mapping of RACH resources to additional serach space acc. to agreements in Running CR

[R2-2202558](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202558.zip) Signaling aspects of RACH partitioning Apple discussion Rel-17 NR\_SmallData\_INACTIVE-Core, NR\_cov\_enh-Core, NR\_redcap-Core, NR\_slice-Core

[R2-2202693](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202693.zip) Remaining issues for signaling design for RACH partitioning CATT discussion Rel-17 NR\_cov\_enh-Core, NR\_slice-Core, NR\_SmallData\_INACTIVE-Core, NR\_redcap-Core Withdrawn

[R2-2203063](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203063.zip) Discussion on RO sharing cases for common RACH configuration LG Electronics Inc. discussion Rel-17 NR\_SmallData\_INACTIVE-Core, NR\_slice-Core, NR\_redcap-Core, NR\_cov\_enh-Core

[R2-2203339](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203339.zip) Common signalling for RACH indication and partitioning Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core, NR\_slice-Core, NR\_redcap-Core, NR\_cov\_enh-Core Late

[R2-2203356](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203356.zip) RSRP Thresholds for RACH Partitioning Ericsson discussion Rel-17 NR\_redcap-Core, NR\_slice-Core, NR\_cov\_enh-Core Late

[R2-2203358](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203358.zip) Introduction of common RACH partitioning aspects in RRC Ericsson (rapporteur) CR Rel-17 38.331 16.7.0 2951 - B NR\_SmallData\_INACTIVE-Core, NR\_cov\_enh-Core, NR\_redcap-Core, NR\_slice-Core Late

[R2-2203393](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203393.zip) Further Discussion on RACH Partitioning in RA Configuration Aspect vivo discussion Rel-17 NR\_SmallData\_INACTIVE-Core, NR\_cov\_enh, NR\_redcap-Core, NR\_slice-Core [R2-2201597](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2201597.zip)

[R2-2203405](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203405.zip) Slice-specific RACH prioritization in Common RACH Framework Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_slice-Core

### 8.18.2 Common aspects of RACH procedure

Including output of [POST116bis-e][514][RA Part] UP open issues (ZTE) – NO contributions on these issues

Any other contributions should focus on important issues not covered by open issues email discussions.

[R2-2203309](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203309.zip) [POST116bis-e][514][RA Part] - Open issue list summary ZTE Corporation (rapporteur) report Rel-17 Late

Proposal 1: Carrier selection happens before RACH partition is selected (11 vs 2)

Proposal 2: Carrier selection threshold is common to all BWPs (same as legacy)

Proposal 3: The CE/non-CE selection threshold can then be configured per BWP (as agreed in the CE session)

Proposal 4: For overall MAC procedure (order of steps is as below):

RRC will indicate to MAC whether SDT, REDCAP, SliceX is applicable for any RACH

If SDT is applicable, MAC would have checked already that the correct RACH partition is available (this is also discussed as part of SDT)

If carrier is not indicated by RRC, MAC will select the carrier (this is same as legacy)

MAC will perform BWP selection (this is also legacy behaviour)

MAC will determine CE applicability after BWP is selected

Finally, MAC will select the RACH partition

Proposal 5: BWP selection is handled in REDCAP CR.

Proposal 6: rsrp-Threshold-Msg3Rep is configured per BWP

Proposal 7: RSRP threshold for SSB selection for CE be configured differently in different RACH partitions (note this is conditional IE configured only in rach partitions that support CE)

Proposal 8: RACH partitioning can be applicable also in connected mode (FFS if any changes are needed in MAC for this)

Proposal 9: In case of CFRA, in order to initialize the RACH parameters such as rsrp-ThresholdSSB etc and for CBRA fallback:

Option 1: Network signals an explicit RACH partition to be used

Option 2: UE performs RACH partition selection up front

In case of option 2 it is not clear if network and UE will have the same understanding of the parameters to be used.

Proposal 10: For the REDCAP BWP, network configures a RACH partition which is applicable to REDCAP (i.e. without combination with other features), similar to “legacy” RACH partition in non-Redcap initial BWP

Proposal 11: The network may configure a separate search space for RAR/MSGB per RACH partition (to be captured in RRC CR if agreed). No other mechanism is pursued apart from this for handling the RNTI collision problem.

[R2-2202694](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202694.zip) Remaining issues for common aspects of RACH procedure CATT discussion Rel-17 NR\_cov\_enh-Core, NR\_slice-Core, NR\_SmallData\_INACTIVE-Core, NR\_redcap-Core

[R2-2202976](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2202976.zip) Discussion on RACH partition UP open issues OPPO discussion Rel-17 NR\_SmallData\_INACTIVE-Core, NR\_cov\_enh-Core, NR\_redcap-Core, NR\_slice-Core

[R2-2203206](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203206.zip) RNTI collision issue for different features in NR Sony discussion Rel-17 NR\_SmallData\_INACTIVE-Core [R2-2200917](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2200917.zip)

[R2-2203283](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203283.zip) Common aspects for RACH partitioning Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2203307](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203307.zip) Introduction of common RACH partitioning aspects in MAC ZTE Corporation (rapporteur) CR Rel-17 38.321 16.7.0 1214 - B NR\_SmallData\_INACTIVE-Core, NR\_cov\_enh-Core, NR\_redcap-Core, NR\_slice-Core Late

[R2-2203340](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203340.zip) Further details of RACH procedure with RACH partitioning Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core, NR\_slice-Core, NR\_redcap-Core, NR\_cov\_enh-Core Late

[R2-2203459](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_117-e\Docs\R2-2203459.zip) Remaining issues for RACH partitioning InterDigital discussion Rel-17 NR\_SmallData\_INACTIVE-Core, NR\_cov\_enh-Core, NR\_redcap-Core, NR\_slice-Core