3GPP TSG-RAN WG2 Meeting #120 R2-2xxxxxx

Toulouse, France, November, 2022

Source: RAN2 Chairman (MediaTek)

Title: Agenda

# 1 Opening of the meeting

## 1.1 Call for IPR

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

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

## 1.2 Network usage conditions

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

2/ Please don’t set your WiFi to access point mode, ad-hoc mode, or direct communication mode, as this may cause significant load.

3/ To avoid overload, please don’t use the e-meeting audio / screen sharing tool (GTW) when you are physically at the meeting. This is for remote participants.

## 1.3 Other

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

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

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

# 2 General

## 2.1 Approval of the agenda

## 2.2 Approval of the report of the previous meeting

## 2.3 Reporting from other meetings

## 2.4 Instructions

Rel-17 CR

*Chair: Note that for R2 120, Rel-17 is still in heightened maintenance mode, i.e. with merged CRs, mega CRs, and CR rapporteurs still asked to maintain their responsibilities, e.g. to facilitate editorials and text enhancements. Rel-17 may go to normal mode (separate CRs, CR rapporteurs released from their duties, high bar for text enhancements), in 2023 Q1*

General, all correction CRs / draft CRs:

1. Rapporteurs of Rel-17 WI CRs are asked to continue their volunteer responsibility.

2. Unless otherwise explicitly agreed/indicated, max one Cat F CR per TS per WI shall be produced as outcome of the meeting. Exception: CRs with release independence, NBC CRs, if any, may need to be in a separate CR per WI (decided case by case). Note that Impact analysis is required per CR.

Tdoc limitations

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

- Assigned summary rapporteur input of the summary.

- Email / offline discussions outcomes by discussion rapporteur,

- WI rapporteurs input for WI planning etc,

- TS rapporteur input for TS maintenance

- For a CR rapporteur, i.e. an Assigned Rapporteur for a CR to a TS for a WI, One Rapporteur CR for editorials, text enhancements, smaller corrections (at this time applicable to Rel-17).

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

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

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

Tdoc limitations applies to all other submitted tdocs.

Rel-17 UE capabilities

For NR UE capabilities the following applies:

1: As previously, work on mega CRs (one mega CR for TS 38.306 and one for TS 38.331). This work is done under Agenda Item AI 6.0.2

2: Coordinate centrally incorporation in CRs of RAN1 / RAN4 features for all Rel17 WIs. This work is done under Agenda Item AI 6.0.2 and changes are done directly to the mega CRs. There could be exceptions, case by case, where RAN1 / RAN4 features are treated under a WI-specific Agenda Item instead.

3 At the end of R2 120, endorsed WI specific UE capability CRs will be merged into the mega CRs, and the mega CRs will be provided to TSG RAN. Any exception to this need to be decided case by case.

## 2.5 Others

# 3 Incoming liaisons

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

# 4 EUTRA Rel-16 and earlier

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

## 4.1 NB-IoT and eMTC corrections Rel-16 and earlier

(NB\_IOTenh3-Core; leading WG: RAN1; REL-16; started: Jun 18; Completed: June 20; WID: RP-200293); REL-15 and Earlier NB-IoT WIs are in scope but not listed explicitly (long list).

(LTE\_eMTC5-Core; LTE\_eMTC5-Core; leading WG: RAN1; REL-16; started: Jun 18; Completed: June 20; WID: RP192875;), REL-15 and Earlier eMTC WIs are in scope but not listed explicitly (long list).

## 4.2 V2X and Side-link corrections Rel-15 and earlier

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

## 4.3 Positioning corrections Rel-16 and earlier

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

Documents in this agenda item will be handled by email. No web conference is planned for this agenda item.

## 4.4 Other LTE corrections Rel-16 and earlier

(LTE\_feMob-Core; leading WG: RAN2; REL-16; started: Jun 18; Completed: June 20; WID: RP-190921)

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

(Documents relating to Rel-16 LTE but for which there is no existing RAN WI/SI, e.g. LSs from CT/SA requesting RAN2 action)

Including TEI16, TEI15 etc corrections and issues that do not fit under any other topic.

For LTE mobility enhancements, only corrections that are LTE-specific should be submitted to this AI. Corrections that impact or are common with NR mobility enhancements should be submitted to 5.1.X instead.

# 5 NR Rel-15 and Rel-16

Essential corrections only.

Tdoc Limitation: 10 tdocs in total for all sub agenda items.

## 5.1 Common

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

(NR\_newRAT-Core; leading WG: RAN1; REL-15; started: Mar. 17; closed: Jun. 19: WID: RP-191971)

(NR\_IAB-Core; leading WG: RAN2; REL-16; started: Dec 18; target Aug 20; WID: RP-200840)

(NR\_unlic-Core; leading WG: RAN1; REL-16; started: Dec 18; Closed June 20; WID: RP-192926).

(NR\_IIOT-Core; leading WG: RAN2; REL-16; started: Mar 19; Completed: Jun 20; WID: RP-200797)

(NR\_UE\_pow\_sav-Core; leading WG: RAN1; REL-16; started: Mar 19; Completed Jun 20; WID: RP-200494).

(NR\_2step\_RACH-Core; leading WG: RAN1; REL-16; started: Dec 18; Completed: June 20; WID: RP-200085).

(SRVCC\_NR\_to\_UMTS-Core; leading WG: RAN2; REL-16; started: Dec 18; Completed; Mar 20; WID: RP-190713)

(RACS-RAN-Core, leading WG: RAN2; REL-16; started: Mar 19; completed: Jun 20; WID: RP-191088)

(NG\_RAN\_PRN-Core; leading WG: RAN3; REL-16; started: Mar 19; completed: June 20; WID: RP-200122)

(NR\_eMIMO-Core, leading WG: RAN1; REL-16; started: Jun 18; target; Aug 20; WID: RP-200474;)

(NR\_CLI\_RIM; leading WG: RAN1; REL-16; started: Dec 18; Completed: Jun 20; WID: RP-191997;)

(NR\_L1enh\_URLLC-Core, leading WG: RAN1; REL-16; Completed: June 20; WID: RP-191584)

(LTE\_NR\_DC\_CA\_enh-Core; leading WG: RAN2; REL-16; started: Jun 18; Target Aug 20; WI RP-200791)

(NR\_Mob\_enh-Core; leading WG: RAN2; REL-16; started: Jun 18; Completed June 20; WID: RP-192277).

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

(NR TEI16).

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

### 5.1.1 Stage 2 and Organisational

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

### 5.1.2 User Plane corrections

User Plane corrections will be handled in a break out session

#### 5.1.2.1 MAC

#### 5.1.2.2 RLC PDCP SDAP BAP

#### 5.1.2.3 Other

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

### 5.1.3 Control Plane corrections

#### 5.1.3.1 NR RRC

In case a correction need to mirrored for both NR RRC and LTE RRC, the corrections should be submitted under one single AI, i.e. the sub-AIs below this.

##### 5.1.3.1.1 Connection control

Including L1 Parameters, L2 Parameters, Connection establishment and release, Connection reconfiguration (also reconfig with sync, Handover), Connection resume and release with RRC\_INACTIVE state, Security procedures, re-establishment, RRC processing delay requirements etc.

##### 5.1.3.1.2 Other

#### 5.1.3.2 LTE changes

LTE-specific changes for these WIs. Changes that are applied to both LTE and NR shall be treated together under respective Agenda item other than this one.

#### 5.1.3.3 UE capabilities

#### 5.1.3.4 Idle and inactive mode procedures

This agenda item addresses the idle and inactive behaviour specified in 38.304 or 36.304. Other aspects related to inactive (e.g. state transitions, out of coverage, etc) are covered under RRC agenda items

## 5.2 NR V2X

(5G\_V2X\_NRSL-Core; leading WG: RAN1; REL-16; started: Mar 19; target; Aug 20; WID: RP-200129).

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

### 5.2.1 General and Stage-2 corrections

Including incoming LSs, rapporteur inputs, etc.

### 5.2.2 Control plane corrections

This agenda item may utilize a summary document on RRC (Huawei).

### 5.2.3 User plane corrections

This agenda item may utilize a summary document on MAC (LG).

## 5.3 NR Positioning Support

(NR\_newRAT-Core; leading WG: RAN1; REL-15; started: Mar. 17; closed: Jun. 19: WID: RP-191971)

(NR\_pos-Core; leading WG: RAN1; REL-16; started: Mar 19; target; Jun 20; WID: RP-200218).

(NR TEI16 Positioning)

### 5.3.1 General and Stage 2 corrections

Including incoming LSs, Including impact to 36.305 and 38.305. Stage 2 corrections shall be discussed with the specification rapporteur (Sven Fischer sfischer@qti.qualcomm.com) before submission. Stage 2 CRs not discussed with the specification rapporteur will not be treated.

### 5.3.2 RRC corrections

Including impact to 36.331, 38.331, and 38.306.

### 5.3.3 LPP corrections

### 5.3.4 MAC corrections

## 5.4 SON MDT support for NR

(NR\_SON\_MDT-Core; leading WG: RAN3; REL-16; started: Jun 19; Completed June 20; WID: RP-191776).

### 5.4.1 General and stage-2 corrections

Including incoming LSs, TS 37.320 corrections

### 5.4.2 TS 38.314 corrections

### 5.4.3 RRC corrections

# 6 NR Rel-17

## 6.0 General

This AI covers corrections to all NR Rel-17 Work Items, but shall only be used for aspects that does not fit under other more specific AIs, e.g. multi-WI aspects.

Tdoc Limitation: 4

### 6.0.1 RRC

Including general RRC or multi-WI aspects.

#### 6.0.1.0 In-principle Agreed CRs

#### 6.0.1.1 Other

### 6.0.2 UE capabilities

Feature lists from other groups and UE cap Mega CRs will be treated under this AI. Specific issues may be reallocated to / from WI-specific AIs.

#### 6.0.1.0 In-principle Agreed CRs

#### 6.0.1.1 Other

### 6.0.3 User Plane related aspects

E.g. cross WI coordination on MAC CEs.

This AI will be handled in a break-out session.

### 6.0.4 Other

E.g. Multi-TS/high-level issues, Stage-2, 38.304 etc

## 6.1 NR Multicast

(NR\_MBS-Core; leading WG: RAN2; REL-17; WID: RP-201038)

Tdoc Limitation: 3 tdocs

It is encouraged to contribute with draft CRs or provide TP(s) for the affected specifications in the Annex of the contribution to facilitate the inclusion in the rapporteur CR.

### 6.1.0 In-principle Agreed CRs

Including also endorsed UE capabilities draft CRs.

Not counted towards Tdoc limitation.

### 6.1.1 Organizational

LS ins etc.

### 6.1.2 Stage-2 corrections

### 6.1.3 CP corrections

Including corrections to TS 38.331, TS 38.304, features / UE caps developed in RAN2 (complementary to AI 6.0.2).

### 6.1.4 UP corrections

Including corrections to MAC, PDCP, RLC and SDAP.

## 6.2 MR DC CA further enhancements

(LTE\_NR\_DC\_enh2-Core; leading WG: RAN2; REL-17; WID: RP-201040)

Tdoc Limitation: 2 tdocs

No documents should be submitted to 6.2. Please submit to.6.2.x

Rapporteurs may provide baseline correction CRs containing smaller corrections, text clarifications etc - please contact the Rapporteur before providing contributions on those aspects.

### 6.2.0 In-Principle Agreed CRs

### 6.2.1 Stage-2 corrections

Including Stage-2 corrections related to DCCA WI.

Including discussion on whether there can be a target SN without SCG in CHO with SN procedure, and what would be the use case for that.

### 6.2.2 Stage-3 corrections

Including essential corrections to CPAC, CHO + MR-DC, deactivated SCG and temporary RS for SCell activation..

Including discussion on whether the restriction on UE ignoring measID that have no CPC associated is a transitory issue or not.

Including discussion on how/whether anything is needed to solve the situation that, unlike Rel-17 UEs, Rel-16 UEs are required to perform conditional measurements regardless whether there is an associated conditional reconfiguration, and the Rel-17 network is not aware of this.

## 6.3 Multi SIM

(LTE\_NR\_MUSIM-Core; leading WG: RAN2; REL-17; WID: RP-212610)

Tdoc Limitation: 2 tdocs

Rapporteurs may provide baseline correction CRs containing smaller corrections, text clarifications etc - please contact the Rapporteur before providing contributions on those aspects.

Including discussion on SA2 LS received in [R2-2209348](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_119bis-e/Docs/R2-2209348.zip)

## 6.4 NR IAB enhancements

(NR\_IAB\_enh-Core; leading WG: RAN2; REL-17; WID: RP-211548)

Time budget: NA

Tdoc Limitation: 3 tdocs

### 6.4.1 Control Plane and Stage-2

### 6.4.2 User Plane

## 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).

### 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

### 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

## 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).

### 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

### 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

## 6.7 NR Sidelink relay

(NR\_SL\_Relay-Core; leading WG: RAN2; REL-17; WID: RP-212601)

Tdoc Limitation: 3 tdocs

### 6.7.0 In-principle agreed CRs

CRs AIP from RAN2#119bis-e.

### 6.7.1 General and stage 2 corrections

Incoming LSs, etc., and any stage 2 corrections (impact to 38.300).

### 6.7.2 Control plane corrections

Including connection management, SI delivery, paging, access control for remote UE, and service continuity.

### 6.7.3 User plane corrections

Including SRAP aspects and QoS.

## 6.8 RAN slicing

(NR\_Slice -Core; leading WG: RAN2; REL-17; WID: RP-212534)

Tdoc Limitation: 2 tdocs

Proposals that do not provide relevant Stage-3 details will not be treated.

Including further disucssion on SA2 LS [R2-2209358](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_119bis-e/Docs/R2-2209362.zip) and how to capture applicability of slice-based RACH in RRC states

## 6.9 UE Power Saving

(NR\_UE\_pow\_sav\_enh-Core; leading WG: RAN2; REL-17; WID: RP-212632)

Tdoc Limitation: 2 tdocs

### 6.9.1 Control Plane and Stage-2

### 6.9.2 User Plane

## 6.10 NR Non-Terrestrial Networks (NTN)

(NR\_NTN\_solutions-Core; leading WG: RAN2; REL-17; WID: RP-211557)

Tdoc Limitation: 3 tdocs

### 6.10.0 In-principle agreed CRs

CRs AIP from RAN2#119bis-e.

### 6.10.1 General and Stage 2 corrections

LSs, rapporteur inputs and Stage 2 corrections. Rapporteur inputs and other pre-assigned documents in this AI do not count towards the tdoc limitation.

### 6.10.2 UP corrections

### 6.10.3 CP corrections

## 6.11 NR positioning enhancements

(NR\_pos\_enh-Core; leading WG: RAN1; REL-17; WID: RP-210903)

Tdoc Limitation: 4 tdocs

### 6.11.0 In-principle agreed CRs

CRs AIP from RAN2#119bis-e.

### 6.11.1 General and stage 2 corrections

Incoming LSs, etc., and any stage 2 corrections (impact to 36.305 or 38.305). Stage 2 corrections without functional impact will be treated at lower priority or not at all.

### 6.11.2 RRC corrections

Corrections to 38.331, except for UE capability issues which are handled under the UE capability agenda item.

### 6.11.3 LPP corrections

Corrections to 37.355.

### 6.11.4 MAC corrections

Corrections to 38.321.

### 6.11.5 UE capabilities

Including impact to 38.306 and any UE-capability-specific impact to 38.331.

## 6.12 Reduced Capability

(NR\_redcap-Core; leading WG: RAN1; REL-17; WID: RP-211574)

Tdoc Limitation: 4 tdocs

### 6.12.1 General and Stage 2 corrections

LSs, rapporteur inputs and Stage 2 corrections. Rapporteur inputs and other pre-assigned documents in this AI do not count towards the tdoc limitation.

### 6.12.2 CP corrections

### 6.12.3 UP corrections

## 6.13 SON MDT

(NR\_ENDC\_SON\_MDT\_enh-Core; leading WG: RAN3; REL-17; WID: RP-201281)

Tdoc Limitation: 4 tdocs

### 6.13.1 Organizational and Stage-2

LS in etc. CR Rapporteurs to provide input CRs, and Provide resolution proposals for smaller and editorial corrections. For Editorial corrections please discuss with CR Rapporteur. Stage-2 corrections and system level discussions, if needed

### 6.13.3 SON Corrections

### 6.13.4 MDT Corrections

## 6.14 NR QoE

(NR\_QoE-Core; leading WG: RAN3; REL-17; WID: RP-211406)

Tdoc Limitation: 1 tdoc

Rapporteurs may provide baseline correction CRs containing smaller corrections, text clarifications etc - please contact the Rapporteur before providing contributions on those aspects.

Including disucssion on SA4 LS [R2-2209362](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_119bis-e/Docs/R2-2209362.zip)

## 6.15 NR Sidelink enhancements

(NR\_SL\_enh-Core; leading WG: RAN1; REL-17; WID: RP-202846)

Tdoc Limitation: 3 tdocs

Note some agenda item(s) may use pre-meeting discussion based on a summary document.

### 6.15.0 In-principle agreed CRs

CRs AIP from RAN2#119bis-e.

### 6.15.1 Organizational

Including incoming LSs, rapporteur inputs, stage 2 corrections, etc.

### 6.15.2 Control plane corrections

### 6.15.3 User plane corrections

## 6.16 NR Non-Public Network enhancements

(WI NG\_RAN\_PRN\_enh-Core; leading WG: RAN3; REL-17; WID: RP-202363)

Tdoc Limitation: 1

## 6.17 NR feMIMO

(NR\_feMIMO-Core; leading WG: RAN1; REL-17; WID: RP-212535)

Tdoc Limitation: 2 tdocs

### 6.17.0 In-Principle Agreed CRs

### 6.17.1 RRC centric Corrections

Including corrections to other CP TSes, and Stage-2 corrections, if any.

### 6.17.2 MAC centric Corrections

## 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

### 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

## 6.19 Coverage Enhancements

(NR\_cov\_enh-Core; leading WG: RAN1; REL-17; WID: RP-211566)

Tdoc Limitation: 2 tdoc

Common aspects related to RACH indication (in MSG1) / RACH partitioning shall be submitted to 6.18

### 6.19.1 Organizational

Rapporteur input, incoming LS etc. CR Rapporteurs may provide baseline correction CRs containing smaller corrections, text clarifications, etc - please contact the CR rapporteurs before providing contributions on those aspects.

### 6.19.2 General

All aspects.

## 6.20 Extending NR operation to 71GHz

(NR\_ext\_to\_71GHz-Core; leading WG: RAN1; REL-17; WID: RP-212637)

Tdoc Limitation: 1 tdoc

### Rapporteurs may provide baseline correction CRs containing smaller corrections, text clarifications etc - please contact the Rapporteur before providing contributions on those aspects. 6.20.0 In-Principle Agreed CRs

### 6.20.1 Stage-2 and Stage-3 corrections

Including discussion on CCA for neighbour cell measurements in Rel-17 based on RAN4 LS R4-2217193

## 6.21 TEI17

### 6.21.0 In-Principle Agreed CRs

### 6.21.1 TEI proposals

Including incoming LSes. 1. TEI proposals in progress, and 2. New proposal, which a) is authored by an operator (and preferably co-signed by more), b) resolves a concrete problem in the market for this operator.

### 6.21.2 Corrections

Corrections CRs (Correction to TEI)

## 6.22 NR and MR-DC measurement gap enhancements

(NR\_MG\_enh-Core; leading WG: RAN4; REL-17; WID: RP-211591)

Tdoc Limitation: 1 tdocs

## 6.23 Uplink Data Compression (UDC)

(NR\_UDC\_enh-Core; leading WG: RAN2; REL-17; WID: RP-211203)

Tdoc Limitation: 1 tdocs

## 6.24 NR R17 Other

Includes Rel-17 Work Items without specific R2 Agenda Item. Includes LS in for R17 items not in a specific R2 Agenda Item.

### 6.24.1 RAN4 led Items

#### 6.24.1.0 In-Principle Agreed CRs

#### 6.24.1.1 General

### 6.24.2 RAN1 led Items

#### 6.24.2.0 In-Principle Agreed CRs

#### 6.24.2.1 General

### 6.24.3 Other

#### 6.24.3.0 In-Principle Agreed CRs

#### 6.24.3.1 General

# 7 Rel-17 EUTRA Work Items

## 7.1 Common

(NB\_IOTenh4\_LTE\_eMTC6-Core; leading WG: RAN1; REL-17; WID: RP-211340)

(UPIP\_EN-DC\_UE; leading WG: RAN3; REL-17; WID: RP‑213669)

(LTE TEI17)

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

## 7.2 NB-IoT and eMTC support for NTN

Tdoc Limitation: 3 tdocs

### 7.2.0 In-principle agreed CRs

CRs AIP from RAN2#119bis-e.

### 7.2.1 General and Stage 2 corrections

LSs, rapporteur inputs and Stage 2 corrections. Rapporteur inputs and other pre-assigned documents in this AI do not count towards the tdoc limitation.

### 7.2.2 UP corrections

### 7.2.3 CP corrections

# 8 Rel-18

## 8.1 NR network-controlled repeaters

(NR\_NetConRepeater; leading WG: RAN1; REL-18; WID: RP-222673)

Time budget: 0.5 TU

Tdoc Limitation: 2 tdocs

### 8.1.1 Organizational

Including LSs and any rapporteur inputs.

### 8.1.2 Signalling for side control information

Signalling and procedures for for side control information, based on RAN1 agreements. Additionally, any other RAN2 reletated aspects, if needed.

### 8.1.3 Repeater management

Including Identification and authorization of network-controlled repeaters, taking into accout feedback from SA3 (S3-223080).

## 8.2 Expanded and improved NR positioning

(FS\_NR\_pos\_enh2; leading WG: RAN1; REL-18; WID: RP-221814)

Time budget: 2 TU

Tdoc Limitation: 4 tdocs

### 8.2.1 Organizational

Including incoming LSs and rapporteur inputs.

### 8.2.2 Sidelink positioning

Study of positioning architecture and signalling procedures (e.g. configuration, measurement reporting, etc) to enable sidelink positioning covering both UE based and network based positioning. Considering relative positioning, ranging and absolute positioning.

### 8.2.3 RAT-dependent integrity

Study methodologies, procedures, signalling, etc for determination of positioning integrity for both UE-based and UE-assisted positioning. Focus on reuse of concepts and principles being developed for RAT-Independent GNSS positioning integrity, where possible. Identification of error sources may require input from RAN1.

### 8.2.4 LPHAP

Study the requirements on LPHAP as developed by SA1 and evaluate whether existing RAN functionality can support these power consumption and positioning requirements. Based on the evaluation, and, if found beneficial, study potential enhancements to help address any limitations.

### 8.2.5 RedCap positioning

Based on RAN1 evaluation, assess the necessity of enhancements, and, if needed, identify enhancements to help address limitations associated with RedCap UEs.

## 8.3 Network energy savings for NR

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

Time budget: 1 TU

Tdoc Limitation: 4 tdocs

All contributions should have accompanying TP for each proposed solutions and identified RAN2 impact. All contributions should focus on the RAN2 impacts needed to be captured in TR and benefit of the solutions proposed.

### 8.3.1 Organizational

LS, workplan, email discussion etc

### 8.3.2 DTX/DRX mechanism

Contributions should focus on further details and open issues for DTX/DRX, including RAN2 impacts and benefits.

### 8.3.3 SSB/SIB-less/paging

Contributions should focus on further details and open issues for SSB/SIB-less/paging solutions, including RAN2 impacts and benefits.

### 8.3.4 Cell selection/re-selection

Contributions should focus on further details and open issues for cell selection/reselection, including RAN2 impacts and benefits.

### 8.3.5 Connected mode mobility

Contributions should focus on the need of mobility enhancements, including CHO and group mobilitiy. Proposed enhacments should be properly explained and have accompanying TPs.

### 8.3.6 Others

Contributions on remaining solutions not above, including cell wake-up signal, resource adapation, BWP adaptation, NES state determination and signaling, etc. Focus on these contributions should be on RAN2 impact and feasibility.

General UE assistance contributions will be deprioritized. Specific UE assistance aspects relating to the identified solutions can be proposed as part of other contributions.

## 8.4 Further NR mobility enhancements

(NR\_Mob\_enh2-Core; leading WG: RAN2; REL-18; WID: RP-222332)

Time budget: 2 TU

Tdoc Limitation: 6 tdocs .

### 8.4.1 Organizational

Including LSs and any rapporteur inputs (e.g. work plan, running CRs update).

### 8.4.2 L1L2 Triggered Mobility

#### 8.4.2.1 General and Stage-2

##### 8.4.2.1.1 Characteristics and Scenarios

Including Consolidation of expectations, what characteristic to enhance, elaborate on the components of the latency time line. Including further Specification of focus Scenarios. Including expectation of what characteristics may be addressed by other groups, if this need to be further discussed in RAN2.

##### 8.4.2.1.2 Procedure Descriptions

Procedure descriptions on pre-Stage-2 level, e.g. to describe to other groups what is intended (e.g. SA3, RAN1, RAN4, RAN3).

#### 8.4.2.2 RRC

Including solutions focused on RRC, e.g. continuation of RRC modelling discussion, to what extent / how a candidate configuration is “maintained”, issues, and options related to support of candidate configuration being a Delta Configuration.

WID: Configuration and maintenance for multiple candidate cells to allow fast application of configurations for candidate cells [RAN2, RAN3].

#### 8.4.2.3 Cell Switch

Including Candidate solutions focused on dynamic cell switch not addressed by the RRC subclause above. Settle expectations for what shall happen at the cell switch in the different scenarios and consolidate what information is required to be provided. Discussion can inculde actions and procedure that may be triggered simultaneously, e.g. by other MAC CEs.

WID: Dynamic switch mechanism from serving cell to candidate cell (including SpCell and SCell) for the potential applicable scenarios based on L1/L2 signalling [RAN2, RAN1]

### 8.4.3 NR-DC with selective activation cell of groups

Consolidate the aspects to improve, and identify candidate solutions.

### 8.4.4 CHO including target MCG and candidate SCGs for CPC/CPA in NR-DC

## 8.5 XR Enhancements for NR

(FS\_NR\_XR\_enh; leading WG: RAN2; REL-18; WID: RP-220285)

Time budget: 2 TU

Tdoc Limitation: 7 Tdocs

### 8.5.1 Organizational

Including LSs and any rapporteur inputs (e.g. work plan, draft TR)

### 8.5.2 XR-awareness

No documents should be submitted to 8.5.2. Please submit to 8.5.2.x

Contributions should take the existing SA2/SA4 decisions into account.

#### 8.5.2.1 PDU sets and data bursts

Including discussion on how PDU sets can be mapped to DRBs and how the LCH configuration works.

Including discussion on “traffic flow without PDU set” and how does that fit in with XR traffic awareness (e.g. is it only pose control)?

#### 8.5.2.2 PDU prioritization

Including discussion on whether PDU prioritization is needed for XR traffic, and how should it work, e.g. whether there are impacts to LCP mechanism, how does the PDU set importance work, etc.

#### 8.5.2.3 PDU discard

Including discussion on how to handle PDU discarding of XR traffic, e.g. do we need new discard timers, how to handle PDU discard in PDCP and/or RLC, etc.

### 8.5.3 XR-specific power saving

No documents should be submitted to 8.5.3. Please submit to 8.5.3.x

#### 8.5.3.1 DRX enhancements

Including discussion on how DRX can be configured for XR, how to switch between DRX configurations and how does that impact power saving.

Including discussion on whether/what RAN2 needs for the non-integer DRX periodicity.

Including discussion on whether XR requires multiple DRX configurations active at the same time.

#### 8.5.3.2 Other enhancements

Including discussion on how traffic and QoS related information on uplink traffic should be provided to RAN for UE power savings.

### 8.5.4 XR-specific capacity improvements

No documents should be submitted to 8.5.4. Please submit to 8.5.4.x

#### 8.5.4.1 Feedback enhancements

Including further discussion on how enhanced BSR works for XR (e.g. information needed, overhead, impact to capacity, etc.).

#### 8.5.4.2 Scheduling enhancements

Including discussion on scheduling enhancements to improve XR capacity.

Including discussion on RAN2 aspects of CG enhancements and UE assistance information for XR.

## 8.6 IoT NTN enhancements

(xx-Core; leading WG: RAN1; REL-18; WID: RP-221806)

Time budget: 1 TU

Tdoc Limitation: 3 tdocs

### 8.6.1 Organizational

LSs, rapporteur inputs and other organizational documents. Rapporteur inputs and other pre-assigned documents in this AI do not count towards the tdoc limitation.

### 8.6.2 Performance Enhancements

#### 8.6.2.1 HARQ enhancements

#### 8.6.2.2 GNSS operation enhancements

Not treated at this meeting. No contributions expected

### 8.6.3 Mobility Enhancements

#### 8.6.3.1 Enhancements for neighbour cell measurements

#### 8.6.3.2 Other

### 8.6.4 Enhancements to discontinuous coverage

Not treated at this meeting. No contributions expected

## 8.7 NR NTN enhancements

(xx-Core; leading WG: RAN1; REL-18; WID: RP-222654)

Time budget: 1 TU

Tdoc Limitation: 4 tdocs

### 8.7.1 Organizational

LSs, rapporteur inputs and other organizational documents. Rapporteur inputs and other pre-assigned documents in this AI do not count towards the tdoc limitation.

### 8.7.2 Coverage Enhancements

### 8.7.3 Network verified UE location

### 8.7.4 NTN-TN and NTN-NTN mobility and service continuity enhancements

#### 8.7.4.1 Cell reselection enhancements

#### 8.7.4.2 Handover enhancements

## 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

### 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

## 8.9 Enhanced NR Sidelink Relay

(NR\_SL\_relay\_enh-Core; leading WG: RAN2; REL-18; WID: RP-221262)

Time budget: 1.5 TU

Tdoc Limitation: 4 tdocs

### 8.9.1 Organizational

Including incoming LSs and rapporteur inputs.

### 8.9.2 UE-to-UE relay

Single-hop Layer-2 and Layer-3 UE-to-UE relay for unicast. Focus for this meeting is on the common L2/L3 parts: relay discovery and (re)selection. Tdocs on other aspects of the objective may be submitted but will not be treated at this meeting.

### 8.9.3 Service continuity enhancements for L2 UE-to-network relay

Inter-gNB direct/indirect path switching; intra-gNB indirect/indirect path switching; and inter-gNB indirect/indirect path switching, to be supported by reuse of solutions for the other scenarios.

### 8.9.4 Multi-path relaying

Study the benefit and potential solutions for multi-path support to enhance reliability and throughput. Includes the cases where a UE is connected to the same gNB using one direct path and one indirect path via 1) Layer-2 UE-to-Network relay, or 2) via another UE (where the UE-UE inter-connection is assumed to be ideal).

### 8.9.5 DRX

Study the gains and, if needed, specify signalling between gNB and relay UE in sidelink mode 2 to assist the determination of the sidelink DRX configuration used for remote UE. This agenda item will be handled at lower priority.

## 8.10 IDC enhancements for NR and MR-DC

(NR\_IDC\_enh-Core; leading WG: RAN2; REL-18; WID: RP-221281)

Time budget: 1 TU

Tdoc Limitation: 2 tdocs

This WI expects to address interference between 3GPP (including various MR-DC architectures, i.e. NR-DC and EN-DC) and non-3GPP RAT (e.g. WiFi). Note: Enhancements to FDM solution is prioritized. LTE IDC solution should be considered as the baseline for the solutions developed in this WI.

### 8.10.1 Organizational

LS in. Rapporteur Input

### 8.10.2 FDM solution enhancements

Enhancements to FDM solution, to allow more granular indication of affected frequencies (e.g. granularity of BWP or PRB level).

Including the outcome of email discussion [Post119-e][650][IDC] Comparison of FDM solutions (Ericsson). Further discussion on, e.g. stage 3 details of the selected solutions if time is allowed.

### 8.10.3 TDM solution

Introduction of TDM solution (e.g. indication of UE preferred TDM pattern for UL/DL).   
Note: The TDM solution is considered complementary to the FDM solution.

Including the outcome of email discussion [Post119-e][651][IDC] Comparison of TDM solutions (Xiaomi). Further discussion on, e.g. stage 3 details of the selected solutions if time is allowed.

## 8.11 Enhancements of NR Multicast and Broadcast Services

(NR\_MBS\_enh-Core; leading WG: RAN2; REL-18; WID: RP-221458)

Time budget: 0.5 TU

Tdoc Limitation: 2 tdocs

### 8.11.1 Organizational

LS in, rapporteur input etc.

### 8.11.2 Multicast reception in RRC\_INACTIVE

Objective: Specify support of multicast reception by UEs in RRC\_INACTIVE state [RAN2, RAN3], PTM configuration for UEs receiving multicast in RRC\_INACTIVE state [RAN2]. Study the impact of mobility and state transition for UEs receiving multicast in RRC\_INACTIVE. (Seamless/lossless mobility is not required) [RAN2, RAN3].

Including aspects such as:

* details of PTM configuration option 1 and 2, e.g. to understand potential enhancements required for RRC state management, configuration update, notifications, service continuity, mobility, session state changes etc.
* comparison of the two options, how to address main issues of each option, mixed option considerations
* potential cross-WG impacts identification

### 8.11.3 Shared processing for MBS broadcast and Unicast reception

Specify Uu signalling enhancements to allow a UE to use shared processing for MBS broadcast and unicast reception, i.e., ‎including UE capability and related assistance information reporting regarding simultaneous unicast reception in RRC\_CONNECTED and MBS broadcast reception from the same or different operators [RAN2]

**This Agenda Item will not be treated during this meeting.**

### 8.11.4 RAN sharing scenarios

Objective: Study and if necessary, specify enhancements to improve the resource efficiency for MBS reception in RAN sharing scenarios [RAN3]

This objective has no official RAN2 involvement and this AI is only to gather companies views on incoming LS from RAN3 (R3-226084), other considerations should not be contributed and will not be treated.

## 8.12 Mobile IAB (Integrated Access and Backhaul) for NR

( NR\_mobile\_IAB -Core; leading WG: RAN3; REL-18; WID: RP-221815)

Time budget: 0.5 TU

Tdoc Limitation: 2 tdocs

### 8.12.1 Organizational

Ls in Rapporteur input etc

### 8.12.2 Mobility Enhancements

Enhancements for mobility of an IAB-node together with its served UEs, including aspects related to group mobility. No optimizations for the targeting of surrounding UEs. [RAN3, RAN2]

### 8.12.3 Other

Define Procedures for migration/topology adaptation to enable IAB-node mobility, including inter-donor migration of the entire mobile IAB-node (full migration) [RAN3, RAN2]. Mitigation of interference due to IAB-node mobility, including the avoidance of potential reference and control signal collisions (e.g. PCI, RACH). [RAN3, RAN2].

## 8.13 Further enhancement of data collection for SON MDT in NR and EN-DC

(NR\_ENDC\_SON\_MDT\_enh2-Core; leading WG: RAN3; REL-18; WID: RP-221825)

Includes LS in’s related to AI/ML for NG-RAN

Time budget: 1 TU

Tdoc Limitation: 6 tdocs

### 8.13.1 Organizational

Ls in Rapporteur input.

### 8.13.2 MRO for inter-system handover for voice fallback

Focus on UE impact

### 8.13.3 MDT override

Focus on UE impact. RAN3 progress pending on RAN2

### 8.13.4 SHR and SPCR

Focus on UE impacts. RAN2/RAN3 progress (including the RAN3 LS R2-2209104) should be considered.

### 8.13.5 SON for NR-U

Focus on UE impacts. RAN2/RAN3 progress (including the RAN3 LS R2-2209105) should be considered.

### 8.13.6 RACH enhancement

### 8.13.7 SON/MDT enhancements for Non-Public Networks

### 8.13.8 Other

## 8.14 Enhancement on NR QoE management and optimizations for diverse services

(NR\_QoE\_enh-Core; leading WG: RAN3; REL-18; WID: RP-221803)

Time budget: 0.5 TU

Tdoc Limitation: 2 tdocs

### 8.14.1 Organizational

Including LSs and any rapporteur inputs (e.g. work plan

### 8.14.2 QoE measurements in RRC\_IDLE INACTIVE

including discussion on RRC configuration of QoE measurements in RRC\_IDLE/INACTIVE for MBS broadcast services, e.g. how can the configuration be given, how does gNB know which UEs can be configured, how is the area scope handled, how long does UE retain the QoE configuration in IDLE/INACTIVE, what are the UE memory requirements for MBS QoE reporting, etc.

### 8.14.3 Rel-17 leftover topics for QoE

Including discussion on Rel-17 leftover topics as agreed in RAN2#119bis-e.

This agenda item will not be treated in this meeting.

### 8.14.4 Support of QoE measurements for NR-DC

Including discussion on support of QoE measurements for NR-DC, e.g. MN-SN coordination, bearer handling for SN QoE reporting, etc.

### 8.14.5 Other topics

Including any other QoE enhancement discussion (e.g. service type aspects, QoE continuity).

This agenda item will be deprioritized in this meeting.

## 8.15 NR Sidelink evolution

(NR\_SL\_enh2; leading WG: RAN1; REL-18; WID: RP-221938)

Time budget: 0.5 TU

Tdoc Limitation: 2 tdocs

Note some agenda item(s) may use pre-meeting discussion based on a summary document.

### 8.15.1 Organizational

Incoming LS and rapporteur inputs.

### 8.15.2 SL-U: RAN2 scope

Including further discussion/details on CAPC and (consistent) LBT failure, other impacts to MAC (resource allocation, DRX operation, etc.) and any other RAN2 scopes.

## 8.16 Artificial Intelligence Machine Learning for NR air interface

(FS\_NR\_AIML\_air; leading WG: RAN1; REL-18; WID:RP-Xxxxxx)

Time budget: 1 TU

Tdoc Limitation: 2 tdocs

Technical input will be prioritized, Organizational aspects may not be treated.

### 8.16.1 Organizational

LS ins. Rapporteur input.

### 8.16.2 AIML methods

Explore AIML methods that are expected applicable to this SI and their expected or potential architecture (allocation of functionality to entities), Identification of Models, other framework aspects, impact on RAN2 and in general.

### 8.16.3 Use case specific aspects

Explore potential impact of the specific use cases, and the related AIML methods. Authors are asked to kindly structure subclauses, observations, proposals according to use case. Note that RAN2 is dependent on RAN1 progress to make detailed decisions.

## 8.17 Dual Transmission/Reception (Tx/Rx) Multi-SIM for NR

(NR\_DualTxRx\_MUSIM-Core; leading WG: RAN2; REL-18; WID: RP-220955)

Time budget: 0 TU

Tdoc Limitation: 0 tdocs

No treatment expected. If needed, LS in could be treated.

Note that the email discussion [Post119bis-e][212][MUSIM] Rel-18 MUSIM solutions (Qualcomm/vivo) will only start after RAN2#120, and is expected to be handled in RAN2#121 or RAN2#121bis-e.

## 8.18 Mobile Terminated Small Data Transmission

(NR\_NR\_MT\_SDT-Core; leading WG: RAN2; REL-18; WID: RP-213583)

Time budget: 0.5 TU

Tdoc Limitation: 1 tdoc

### 8.18.1 Organizational

LS ins. Rapporteur input.

### 8.18.2 General

*Contributions on support for paging-triggered SDT, including triggering and procedures.*

*Note: Data transmission in DL within paging message is not in scope of this WI.*

## 8.19 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: -