3GPP TSG-RAN WG2 Meeting #110 electronic R2-19xxxxx

**Online, June 1 – June 12 2020**

Source: RAN2 Chairman (Mediatek)

Title: Agenda

General

RAN2 110 electronic has full decision power, i.e. full decision power to make agreements and approvals according to RAN WG2 terms of reference, without any need to ratify decisions at a later RAN2 or other meeting.

Scope

R17 will not be handled. R16 and earlier will be handled, all tdoc types, see also instructions for each agenda item.

The specific objectives of this meeting includes to finish all open Rel-16 Work Items, to finish the Rel-16 ASN.1 review, and conclude the Rel-16 UE capabilities work.

Specific methodology

R2 110e is expected to be conducted by email and by web conferences by GoToWebinar, in three parallel sessions. To facilitate easy treatment, some AIs may be summarized in summary tdoc.

Tdoc Limitation for some R16 items

Tdoc Limitation applies as indicated for an Agenda Item for all types of documents. As usual Rapporteur input (email discussion, WI rapporteur, TS rapporteur, assigned CR editor, assigned summary rapporteur etc) do not count. Corrections acknowledged but not addressed/resolved in email discussion, or acknowledged by TS rapporteur also do not count. For RRC, for accepted RIL issues, the proponent company may provide a discussion doc with annex TP (if needed) that do not count towards the tdoc limitation. Note that Contributions should be reserved for more complicated issued and minor issues are expected to be resolved in RRC email discussions or by CR rapporteur without any tdoc.

Endorsed or in-principle agreed CRs

CRs that were endorsed or in-principle agreed at previous bis-meeting, need to be provided for final agreement at this meeting

Rel-16 CRs

CRs for ongoing Rel-16 WIs, that were started last meeting, possibly endorsed, are expected to be updated to include agreements from R2-110-e, before final approval.

Note: Time Budget Comments remain in this document only for reference. They are not applicable for R2 110e.

# 1 Opening of the meeting

## 1.1 Call for IPR

## 1.2 Network usage conditions

## 1.3 Other

# 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 Others

# 3 Incoming liaisons

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

# 4 EUTRA corrections Rel-15 and earlier

See Appendix A for reference to Work items, work item codes and WIDs.

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

## 4.1 NB-IoT corrections Rel-15 and earlier

Documents in this agenda item will be handled in a break out session. Common NB-IoT/eMTC parts treated jointly with 4.2. No web conference is planned for this agenda item

### 4.1.0 In-principle agreed CRs

### 4.1.1 Other

## 4.2 eMTC corrections Rel-15 and earlier

Documents in this agenda item will be handled in a break out session. Common NB-IoT/eMTC parts treated jointly with 4.1. No web conference is planned for this agenda item

### 4.2.0 In-principle agreed CRs

### 4.2.1 Other

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

Documents in this agenda item will be handled in a break out session.

### 4.3.0 In-principle agreed CRs

### 4.3.1 Other

## 4.4 Positioning corrections Rel-15 and earlier

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

### 4.4.0 In-principle agreed CRs

### 4.4.1 Other

## 4.5 Other LTE corrections Rel-15 and earlier

Documents in this agenda item will be handled in a break out session.

### 4.5.0 In-principle agreed CRs

### 4.5.1 Other

# 5 WI: New Radio (NR) Access Technology

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

Only essential corrections

## 5.1 Organisational

Incoming LSs, etc.

## 5.2 Stage 2

### 5.2.1 Stage 2 corrections for TS 38.300

You should discuss your stage 2 CRs with the specification rapporteurs before submission.

#### 5.2.1.0 In-principle agreed CRs

#### 5.2.1.1 Other

### 5.2.2 Stage 2 corrections for TS 37.340

You should discuss your stage 2 CRs with the specification rapporteurs before submission.

#### 5.2.2.0 In-principle agreed CRs

#### 5.2.2.1 Other

### 5.2.3 Positioning

Corrections to both the stage 2 and stage 3 aspects related to positioning. Stage 2 CRs should be discussed with the specification rapporteur before submission.

Documents in this agenda item will be handled in a break out session.

#### 5.2.3.0 In-principle agreed CRs

#### 5.2.3.1 Other

## 5.3 Stage 3 user plane

Essential functional corrections.

### 5.3.1 MAC

#### 5.3.1.0 In-principle agreed CRs

#### 5.3.1.1 Other

### 5.3.2 RLC

#### 5.3.2.0 In-principle agreed CRs

#### 5.3.2.1 Other

### 5.3.3 PDCP

#### 5.3.3.0 In-principle agreed CRs

#### 5.3.3.1 Other

### 5.3.4 SDAP

#### 5.3.4.0 In-principle agreed CRs

#### 5.3.4.1 Other

## 5.4 Stage 3 control plane

Essential functional corrections.

### 5.4.1 NR RRC

Including all architecures

#### 5.4.1.0 In-principle Agreed CRs

#### 5.4.1.1 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.

#### 5.4.1.2 RRM and Measurements and Measurement Coordination

Including late drop.

#### 5.4.1.3 System information

#### 5.4.1.4 Inter-Node RRC messages

#### 5.4.1.5 Other

### 5.4.2 LTE changes related to NR

#### 5.4.2.0 In-principle Agreed CRs

#### 5.4.2.1 Other

### 5.4.3 UE capabilities and Capability Coordination

#### 5.4.3.0 In-principle Agreed CRs

#### 5.4.3.1 Other

Including Late Drop. Including outcome of email discussion [Post109bis-e][064][NR15] XDD FRX differentiation (Qualcomm)

Including outcome of email discussion [Post109bis-e][921][NR15] CRs for FR2 CA Fallback (Apple)

Including outcome of email discussion [Post109bis-e][922][NR15] Default values for UE capability (Nokia)

Including outcome of email discussion [Post109bis-e][923][NR15] clarification on codebook parameters for 2-32 (Huawei)

Including outcome of email discussion [Post109bis-e][924][NR15] unnecessary FRx differentiation (ZTE)

### 5.4.4 Idle/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 (5.4.1.x)

#### 5.4.4.0 In-principle Agreed CRs

#### 5.4.4.1 Other

## 5.5 Void

# 6 Rel-16 NR Work Items

## 6.0 Rel-16 General

### 6.0.1 RRC ASN.1 review

Rapporteur documents and Class 2 RIL issues.

Including outcome of email discussion [NR Rel-16] 38331

### 6.0.2 Feature List and UE capabilities

Coordination by Intel. Including outcome of email discussion [Post109bis-e][963][NR16] UE Capabilities (Intel, NTT Docomo)

### 6.0.3 Other

Other Cross WI issues, e.g. MAC issues.

## 6.1 Integrated Access and Backhaul for NR

(NR\_IAB-Core; leading WG: RAN2; REL-16; started: Dec 18; target; June 20; WID: RP-200084, SR: RP-200083)

Time budget: 3 TU

Tdoc Limitation: 7 tdocs

### 6.1.1 Organisational

Including incoming LSs, draft TS, rapporteur inputs

Overall terminology alignment is needed.

### 6.1.2 Stage-2 Corrections

CRs 38300 36300 (QC), 37340 (Huawei). Open: capture support for fast MCG recovery for IAB

### 6.1.3 BAP Open Issues and Corrections

Open: Alignment with R3 agreements.

BAP CR by Huawei. Including outcome of email discussion [Post109bis-e][019][IAB] BAP (Huawei). Only the email discussion is expected to be treated.

### 6.1.4 User plane Open Issues and Corrections

LS from RAN1 is expected on the handling of the Guard Symbols MAC CE (i.e. if per cell or per CG). MAC CR and if needed a summary by Samsung. Including outcome of email discussion [Post109bis-e][020][IAB] MAC (Samsung). For issues treated in the email discussion only the email discussion is expected to be treated.

### 6.1.5 RRC Open Issues and Corrections

#### 6.1.5.1 General

Issues coord, CRs by Ericsson. Only Rapporteur and CR editor input.

Including outcome of email discussion [Post109bis-e][920][IAB] RRC 2 (Ericsson). Note that for issues covered in the email discussion, only the email discussion will be treated.

#### 6.1.5.2 Open Issues

Open Issues: Signalling for Establishment of F1-C-over-LTE/X2AP path, RAN3 has several agreements on this matter and decided that the explicit path establishment is up to RAN2. IP address signaling via RRC based on RAN3 agreements LS from last meeting (new message?). Default UL mapping for target path after topology adaptation based on RAN3 agreements and LS from last meeting.

#### 6.1.5.3 Corrections

Corrections, Class 3 RIL issues. For accepted RIL issues, the proponent company may provide a discussion doc with annex TP (if needed) that do not count towards the tdoc limitation. Contributions should be reserved for more complicated issued and minor issues are expected to be resolved in RRC email discussions or by CR rapporteur without any tdoc.

### 6.1.6 UE capabilities

Optionality of Rel-15 UE Features for IAB-MT: From RP 87e: RAN WGs to investigate which of the mandatory Rel-15 UE features (as defined in TR 38.822) can be optional for basic operation of [the IAB-MT] (and if found useful, for different classes of IAB-MTs as defined by RAN4). RAN WGs should strive to minimize specification impact.

Including outcome of email discussion [Post109bis-e][925][IAB] UE Cap (Nokia). It is assumed that only the email discussion will be treated. Input need to be input to the email discussion.

### 6.1.7 Other Corrections

E.g. 3x.304, NPN support, we sent an LS and conditionally endorsed CRs.

## 6.2 NR-based Access to Unlicensed Spectrum

(NR\_unlic-Core; leading WG: RAN1; REL-16; started: Dec 18; target; June 20; WID: [RP-192](file:///C:\Data\3GPP\Extracts\RP-191575%20Revised%20WID%20NR-U.doc)926; SR; RP-200459, Further prioritization guidance in RP-191581). Documents in this agenda item will be handled in a break out session.

Time budget: 3 TU

Tdoc Limitation: 3

### 6.2.1   General

Including incoming LSs, rapporteur inputs, etc.  
Contributions in this AI are reserved for WI rapporteur inputs and/or spec rapporteur inputs and do not count towards the tdoc limits. All comments related to 38.300, 38.304 should be given to Ozcan, spec rapporteur. Qualcomm will produce a document with the received issues and update the CR directly

Including [Post109bis-e][937][NR-U] running CR on UE capabilities (Vivo) No contributions are expected for UE capabilities. Please provide your input to the email discussion.

### 6.2.2 User plane

*Including [Post109bis-e][935]][NR-U] MAC open issues (Ericsson)Contributions related to issues addressed by the email discussions should be avoided and are discouraged for this AI.*

*All identified critical open issues should be provided to the rapporteur via email discussion Post109bis-e#935 and new contributions on those topics are discouraged. Contributions should be reserved for more complicated issued.*

*No individual company CRs should be submitted*

### 6.2.3   Control plane

*Including [Post109bis-e][936][NR-U] RRC and ASN.1 open issues (Qualcomm)*

*Contributions related to issues addressed by the email discussions should be avoided and are discouraged for this AI.*

*All identified critical open issues should be provided to the rapporteur via email discussion Post109e#936 and new contributions on those topics are discouraged. Contributions should be reserved for more complicated issued.*

*No individual company CRs should be submitted*

## 6.4 NR V2X

(5G\_V2X\_NRSL-Core; leading WG: RAN1; REL-16; started: Mar 19; target; June 20; WID: [RP-](file:///C:\Data\3GPP\TSGR\TSGR_84\docs\RP-190984.zip)200129; SR: RP-200431). Documents in this agenda item will be handled in a break out session

Time budget: 3 TU

### 6.4.1 General

Including incoming LSs, rapporteur inputs, etc. Contributions in this AI are reserved for WI rapporteur inputs and/or spec rapporteur inputs and do not count towards the tdoc limits.

### 6.4.2 Control plane

#### 6.4.2.1 RRC

Including [Post109bis-e][952][V2X], [Post109bis-e][953][V2X], [Post109bis-e][954][V2X], and RRC ASN.1 issues that require WI-specific discussion. For accepted RIL issues, the proponent company can provide a discussion doc with an annex TP (if needed). Contributions should be reserved for more complicated issued and minor issues are expected to be resolved in RRC email discussions without any tdoc. This agenda item will utilize a summary document (Huawei).

#### 6.4.2.2 Others

Including [Post109bis-e][955][V2X], [Post109bis-e][956][V2X], and remaining other control plane issues (idle/inactive UE procedure, capabilities). Tdoc limitation: 1 tdoc for discussion with an annex TP (if needed) per specification. This agenda item will utilize summary documents (capability: OPPO, idle/inactive procedures: ZTE).

### 6.4.3 User plane

#### 6.4.3.1 MAC

Including [Post109bis-e][957][V2X], [Post109bis-e][958][V2X], and remaining MAC issues. Tdoc limitation: 1 tdoc for discussion with an annex TP (if needed). This agenda item will utilize a summary document (LG).

#### 6.4.3.2 Others

Including [Post109bis-e][959][V2X] and remaining other user plane issues (RLC, PDCP, and SDAP). Tdoc limitation: 1 tdoc for discussion with an annext TP (if needed) per specification. This agenda item will utilize summary documents (RLC: Ericsson, PDCP: CATT, SDAP: Vivo).

## 6.5 Optimisations on UE radio capability signalling

(RACS-RAN-Core; leading WG: RAN2; REL-16; started: Mar 19; target; Jun 20; WID: [RP-191088](file:///C:\Data\3GPP\archive\RAN\RAN%2384\Tdocs\RP-191088.zip), SR: RP-200163). Documents in this agenda item will be handled in a break out session.

R2 part is 100%. Only corrections.

Tdoc limitation: 1 per company

### 6.5.1 Organisational

Including incoming LSs, rapporteur inputs, etc.

Contributions in this AI are reserved for WI rapporteur inputs and do not count towards the tdoc limits.

### 6.5.2 Corrections

Including contributions/TPs on RACS-specific Class 3 ASN.1 review aspects, if any. For these, no individual company CRs should be submitted: please consult with the RRC CR rapporteurs first ([Nathan.Tenny@mediatek.com](mailto:Nathan.Tenny@mediatek.com) for 36.331 and [Gao.Yuan66@zte.com.cn](mailto:Gao.Yuan66@zte.com.cn) for 38.331).

## 6.6 Void

## 6.7 NR Industrial Internet of Things (IoT)

(NR\_IIOT-Core; leading WG: RAN2; REL-16; started: Mar 19; target; Jun 20; WID: [RP-192324](file:///C:\Data\3GPP\TSGR\TSGR_84\docs\RP-191561.zip) SR: RP-200165)

Time budget: 3 TU

Tdoc Limitation: 7 tdocs

### 6.7.1 General

Rapporteur input. Incoming LS etc.

### 6.7.2 RRC Open Issues and Corrections

#### 6.7.2.1 Open Issues

Open issues on Accurate Reference timing: FFS the need for a prohibit timer T346. FFS whether the UE is allowed to send the same interest message. Note that scheduling issues have been moved to the MAC subclause below.

#### 6.7.2.2 Corrections

Corrections, Class 3 RIL issues. For accepted RIL issues, the proponent company may provide a discussion doc with annex TP (if needed) that do not count towards the tdoc limitation. Contributions should be reserved for more complicated issued and minor issues are expected to be resolved in RRC email discussions or by CR rapporteur without any tdoc.

### 6.7.3 MAC Open Issues and Corrections

Email discussion [Post109bis-e][913][IIOT] MAC CR and remaining issues (Samsung)

#### 6.7.3.1 Intra-UE prioritization and multiplexing

Open: LCH-based prioritization when handling grant with the same L1 priority or when no PHY-based prioritization is enabled (pending RAN1 reply LS). Other open issues handled in email discussion.

#### 6.7.3.2 Other

E.g. issues related to scheduling enhancements, which are not part of an email discussion, e.g. whether to support allowing CG periodicities of multiple of 2/7 symbols as a separate capability with a cross-slot boundary capability as a pre-requisite.

### 6.7.4 PDCP Open Issues and Corrections

#### 6.7.4.1 PDCP Duplication

Summary if needed and PDCP CR by LG. Open: For NR-DC, it is FFS how the nodes can coordinate RLC entities activation/deactivation between each other (pending RAN3 discussions).

#### 6.7.4.2 Ethernet Header Compression

Summary if needed by Intel

### 6.7.5 Stage-2 Corrections

Summary if needed and 38300 CR by Nokia

### 6.7.6 UE capabilities

Summary if needed and running 38306 CR by Nokia. Some Open points: FFS whether additional capability or related signalling is needed for joint EHC and ROHC operation. FFS: Revisit the discussion on the number of DRBs the UE shall support with Rel-16 PDCP duplication after the related issue for Rel-15 is clarified. FFS: Allow additional RLC entities to be configured for duplication without impacting the maximum number of DRBs. Discuss further the conditions for allowing additional RLC entities to be configured.

## 6.8 NR Positioning Support

(NR\_pos-Core; leading WG: RAN1; REL-16; started: Mar 19; target; Jun 20; WID: [RP-](file:///C:\Data\3GPP\TSGR\TSGR_84\docs\RP-191156.zip)200218, SR: RP-200217). Documents in this agenda item will be handled in a break out session

Time budget: 1 TU

### 6.8.1 Organisational

Including incoming LSs, rapporteur inputs, etc.

### 6.8.2 Architecture and protocol aspects

No documents should be submitted to 6.8.2. Please submit to 6.8.2.x.

#### 6.8.2.1 Stage 2 corrections

Including impact to 36.305 and 38.305. Stage 2 corrections should be discussed with the specification rapporteur before submission.

This agenda item will utilize a summary document to facilitate treatment of topics during the e-meeting. (Huawei)

Tdoc limitation: 1 tdoc

#### 6.8.2.2 RRC corrections

Including impact to 36.331 and 38.331. Issues for correction in RRC should be raised as class 3 issues in the ASN.1 review process. For accepted RIL issues, the proponent company can provide a discussion doc with an annex TP (if needed). Documents on issues outside the ASN.1 review (aside from email discussion summaries) may be deprioritised.

This agenda item will utilize a summary document to facilitate treatment of topics during the e-meeting. (Ericsson)

Including outcome of email discussion [Post109bis-e][950][POS] Remaining issues on broadcast (CATT)

#### 6.8.2.3 LPP corrections

Issues for correction in LPP should be raised as part of the LPP ASN.1 review process. Documents on issues outside the ASN.1 review (aside from email discussion summaries) may be deprioritised.

This agenda item will utilize a summary document to facilitate treatment of topics during the e-meeting. (Intel)

Including outcome of email discussion [Post109bis-e][946][POS] Reference for additional path reporting (Ericsson)

Including outcome of email discussion [Post109bis-e][947][POS]TRP-ID structure (Ericsson)

Including outcome of email discussion [Post109bis-e][948][POS] LPP ASN.1 review (Qualcomm)

Including outcome of email discussion [Post109bis-e][949][POS] Structure of UE-based assistance data (Ericsson)

Including outcome of email discussion [Post109bis-e][951][POS] Remaining issues on UE-based positioning (Huawei)

#### 6.8.2.4 MAC corrections

Including impact to 38.321.

Tdoc limitation: 1 tdoc

### 6.8.3 Other

Tdoc limitation: 1 tdoc

## 6.9 NR mobility enhancements

(NR\_Mob\_enh-Core; leading WG: RAN2; REL-16; started: Jun 18; target; Mar 20; WID: RP-192277). Documents in this agenda item will be handled in a break out session

No documents should be submitted to 6.9. Documents under 6.9 will be treated together with documents in 7.3.

A web conference may be used for handling some of the discussions in this WI, and summary document may be provided for some agenda items under 6.9.

### 6.9.1 Organisational

Including incoming LSs, running CRs, rapporteur inputs, etc.

Including outcome of [Post109bis-e][927][NR MOB] Stage-2 CR (Intel).

### 6.9.2 Conditional handover

This AI jointly addresses corrections to NR and LTE CHO.

All RRC-related corrections to CHO should be submitted to ASN.1 review agenda items in 6.9.5 (NR RRC) and 7.3.4 (LTE RRC).

Tdoc Limitation per company: 1 tdoc.

### 6.9.3 Conditional PSCell change for intra-SN

Including corrections for CPC.

Including outcome of [Post109bis-e][929][NR MOB] Stage-2 CR for CPC (CATT)

Tdoc Limitation per company: 1 tdoc

### 6.9.4 UE capabilities for conditional handover, fast handover failure recovery and conditional PSCell change

This AI jointly addresses UE capabilities for features in the NR mobility WI (i.e. DAPS, CHO, CPC, T312). Any input on UE capabilities from RAN1/4 will be handled in this agenda item.

Including outcome of [Post109bis-e][930][NR MOB] UE capabilities for NR mobility (Intel).

Tdoc Limitation per company: 1 tdoc

### 6.9.5 ASN.1 review of mobility WIs for NR RRC

This agenda item focuses on **NR RRC** aspects of NR mobility W – LTE RRC aspects of both LTE and NR mobility WIs should be submitted to 7.3.4. Do not submit contributions on WI-specific open issues that are not captured in the current NR RRC to this agenda item.

All ASN.1 issues should be raised in RILs first – contributions where no RIL issue exists may not be treated.

Including contributions/TPs on RRC corrections based on review issues. For these, no individual company CRs should be submitted: please consult with the rapporteur of NR RRC CR first ([yi.guo@intel.com](mailto:yi.guo@intel.com)).

### 6.9.6 Other

Only corrections not fitting other agenda items.

*Including DAPS aspects that are NR-specific* ***without*** *equivalent LTE impacts: Do not use this AI for any DAPS topics that can be discussed jointly for LTE and NR - Contributions on DAPS that apply for both LTE and NR are treated jointly in under 7.3.2.*

Tdoc Limitation per company: 1 tdoc.

## 6.10 DC and CA enhancements

(LTE\_NR\_DC\_CA\_enh-Core; leading WG: RAN2; REL-16; started: Jun 18; target; Jun 20; WID: [RP-192336](file:///C:\Data\3GPP\TSGR\TSGR_84\docs\RP-191600.zip), SR: RP-200319, see also guidance in RP 192326)

Time budget: 2 TU

Tdoc Limitation: 4 tdocs

### 6.10.1 General

Including incoming LSsrapporteur inputs, etc

Including functionality discussions going beyond a specific TS, cross group discussions.

### 6.10.2 UE capabilities

Summary if needed by Huawei

### 6.10.3 MAC Open Issues and Corrections

SCell dormancy, Asynch CA. No listed open issues. CR endorsed at last meeting.

### 6.10.4 RRC Open Issues and Corrections

Corrections, Class 3 RIL issues. For accepted RIL issues, the proponent company may provide a discussion doc with annex TP (if needed) that do not count towards the tdoc limitation. Contributions should be reserved for more complicated issued and minor issues are expected to be resolved in RRC email discussions or by CR rapporteur without any tdoc.

#### 6.10.4.1 NR-NR Dual Connectivity

Including outcome of email discussion [Post109bis-e][926][DCCA] Uplink power control for NR-NR Dual-Connectivity (Apple)

#### 6.10.4.2 Fast Scell activation

#### 6.10.4.3 Early measurement reporting

#### 6.10.4.4 MCG SCell and SCG configuration with RRC resume

#### 6.10.4.5 Fast MCG link recovery

#### 6.10.4.6 Other

### 6.10.5 Stage-2 Corrections

### 6.10.6 Other

## 6.11 UE Power Saving in NR

(NR\_UE\_pow\_sav-Core; leading WG: RAN1; REL-16; started: Mar 19; target; Jun 20; WID: [RP-200494](file:///C:\Data\3GPP\TSGR\TSGR_84\docs\RP-191607.zip); SR: RP-200237, See also guidence in RP-192326). Documents in this agenda item will be handled in a break out session. NOTE: "SCell dormancy" like behaviour will be discussed in MR-DC WI.

Time budget: 1 TU

Tdoc Limitation: 2

### 6.11.1 Organisational

Including incoming LSs, running TS, rapporteur inputs, etc

NOTE: any stage 3 identified issues with MIMO configurations should be provided to 38.331 rapporteur (Mediatek)

Contributions in this AI are reserved for WI rapporteur inputs and/or spec rapporteur inputs and do not count towards the tdoc limits.

Including outcome of [Post109bis-e][941]PowSav] UE capabilities (Intel) No contributions expected for UE capabilities. Please provide your input to the email discussion. Intel is expected to produce first draft of 38.306

### 6.11.2 User plane open issues

Including outcome of [Post109bis-e][938][PowSav] MAC open issues (Huawei)

*Contributions related to issues addressed by the email discussions should be avoided and are discouraged for this AI.*

*All identified critical open issues should be provided to the rapporteur via email discussion Post109bis-e#938 and new contributions on those topics are discouraged. Contributions should be reserved for more complicated and critical issues.*

*No individual company CRs should be submitted*

### 6.11.3 Control Plane open issues

Including outcome of [Post109bis-e][939][PowSav] RRC open issues (Mediatek)

*Contributions related to issues addressed by the email discussions should be avoided and are discouraged for this AI.*

*All identified critical open issues should be provided to the rapporteur via email discussion Post109bise#939 and new contributions on those topics are discouraged. Contributions should be reserved for more complicated.*

*No individual company CRs should be submitted*

### 6.11.6 RRM measurement relaxation

*Including out of [Post109bis-e][939][PowSav] RRC open issues (Mediatek)*

*Contributions related to issues addressed by the email discussions should be avoided and are discouraged for this AI.*

*All identified critical open issues should be provided to the rapporteur via email discussion Post109bis-e#939 and new contributions on those topics are discouraged. Contributions should be reserved for more complicated issued.*

*No individual company CRs should be submitted*

## SON/MDT support for NR

(NR\_SON\_MDT-Core; leading WG: RAN3; REL-16; started: Jun 19; target; Mar 20; WID: RP-191776). Documents in this agenda item will be handled in a break out session  
  
Time budget: 1 TU  
No new additional function will be treated this meeting except the request is from RAN3.

### 6.12.1  Organisational

*Including incoming LSs*

### 6.12.2 Essential input from RAN3

Focus on the request from R3-202818, R3-202869 and R3-202868. Discuss the TS changes to fulfill the agreements of RAN3. Discussion tdoc should be with an annex TP. For each company, only one contribution is allowed. Encourage interested companies combine and converge their work into one contribution.

### 6.12.3 TS37.320 corrections

Each company, including the rapporteur, at most one contribution for this agenda. Encourage to contact 37.320 editor (Nokia) and WI rapporteur (CMCC) first. In general, the documents will be treated from guidance of them.

### 6.12.4 ASN.1 review

For RRC corrections: The proponent company, for accepted RIL issues, if needed, can provide a discussion doc, with an annex TP. Minor issues are expected to be resolved in RRC email discussions without any tdoc (before or during meeting). RRC Rapporteur (Huawei and Ericsson) will classify which RIL issues needs contributions (discussion + TP) based on the outcome of the email discussions related to RIL and SON issues. For those RIL issues that the RRC rapporteur thinks that a disc+TP paper is required then the original proponent of that issue can produce the corresponding contribution.

### 6.12.5 TS 38.314 corrections

Discussion tdoc should be with an annex TP. For each company, only one contribution is allowed

### 6.12.6 UE capabilities

No contribution is allowed for this agenda for any company except rapporteur,. The discussion will be based on rapporteur’s input.

## 6.13 2-step RACH for NR

(NR\_2step\_RACH-Core; leading WG: RAN1; REL-16; started: Dec 18; target; Mar 20; WID: [RP-](file:///C:\Data\3GPP\Extracts\RP-190711%20Revised%20work%20item%20proposal%202%20step%20RACH%20for%20NR.docx)200085; SR: RP-200488). Documents in this agenda item will be handled in a break out session

Time budget: 1 TU

Tdoc Limitation: 1

### 6.13.1 General

Running CRs, Incoming LSs, Contributions in this AI are restricted for WI rapporteur inputs and/or spec rapporteur inputs and do not count towards the tdoc limits.

All comments related to 38.300 should be given directly to Eswar rapporteur. ZTE will update CRs according to received comments offline

### 6.13.2 User plane aspects

Including outcome [Post109bis-e][942][ 2s-RA] UP and other open issues (ZTE)

*Contributions related to issues addressed by the email discussions should be avoided and are discouraged for this AI.*

*All identified critical open issues should be provided to the rapporteur via email discussion Post109bis-e#942 and new contributions on those topics are discouraged. Contributions should be reserved for more complicated and critical issues.*

*No individual company CRs should be submitted*

### 6.13.3 RRC stage-3 related aspects

Including outcome of [Post109bis-e][943][2s-RA] RRC and ASN.1 open issues (Ericsson). Contributions related to issues addressed by the email discussions should be avoided and are discouraged for this AI.

*All identified critical open issues should be provided to the rapporteur via email discussion Post109bis-e#938 and new contributions on those topics are discouraged. Contributions should be reserved for more complicated and critical issues.*

*No individual company CRs should be submitted*

## 6.14 Single Radio Voice Call Continuity from 5G to 3G

(SRVCC\_NR\_to\_UMTS-Core; leading WG: RAN2; REL-16; started: Dec 18; target; Mar 20; WID: [RP-190713](file:///C:\Data\3GPP\archive\RAN\RAN%2383\Tdocs\RP-190713.zip); SR: RP-200436) Documents in this agenda item will be handled in a break out session

Tdoc Limitation: 1 tdoc

The Core part of this WI is 100% Only corrections.

### 6.14.1 Organisational

Including incoming LSs, rapporteur inputs, etc.

Contributions in this AI are reserved for WI rapporteur inputs and do not count towards the tdoc limits.

### 6.14.2 Corrections

Including contributions/TPs on SRVCC-specific Class 3 ASN.1 review aspects, if any. For these, no individual company CRs should be submitted: please consult with the RRC CR rapporteur first ([tangxun@huawei.com](mailto:tangxun@huawei.com)).

## 6.15 Cross Link Interference (CLI) handling and Remote Interference Management (RIM) for NR

(NR\_CLI\_RIM; leading WG: RAN1; REL-16; started: Dec 18; target; Jun 20; WID: [RP-191997](file:///C:\Data\3GPP\archive\RAN\RAN%2385\Tdocs\RP-191997.zip); SR: RP-200453) Documents in this agenda item will be handled in a break out session.

Tdoc Limitation: 1 tdoc

### 6.15.1 Organisational

Including incoming LSs, rapporteur inputs, etc.

Contributions in this AI are reserved for WI rapporteur inputs and do not count towards the tdoc limits.

### 6.15.2 Remaining open issues

Including contributions/TPs on corrections and CLI-specific Class 3 ASN.1 review aspects, if any. For these, no individual company CRs should be submitted: please consult with the RRC CR rapporteur first ([sangwon7.kim@lge.com](mailto:sangwon7.kim@lge.com)).

## 6.16 Enhancements on MIMO for NR

(NR\_eMIMO-Core; leading WG: RAN1; REL-16; started: Jun 18; target; June 20; WID: [RP-200474](file:///C:\Data\3GPP\archive\RAN\RAN%2385\Tdocs\RP-192271.zip); SR: RP-200473). Documents in this agenda item will be handled in a break out session.

Tdoc Limitation: 2 tdocs

### 6.16.1 Organisational

Including incoming LSs, rapporteur inputs, etc.

Contributions in this AI are reserved for WI rapporteur inputs and do not count towards the tdoc limits.

### 6.16.2 RRC aspects

Including output of email discussion [Post109bis-e][933][eMIMO] RRC Open issues (Ericsson).

Including contributions/TPs on eMIMO-specific Class 3 ASN.1 review aspects (such aspects should anyway be raised in the email discussion [933]). No individual company CRs should be submitted.

Also including contributions on UE capability aspects.

### 6.16.3 Other aspects

Including contributions/TPs on MAC corrections. For these, no individual company CRs should be submitted: please consult with the MAC CR rapporteur first ([seungri.jin@samsung.com](mailto:seungri.jin@samsung.com)).

If needed, a summary document may also be utilized to treat this agenda item.

## 6.18 Private Network Support for NG-RAN

(NG\_RAN\_PRN-Core; leading WG: RAN3; REL-16; started: Mar 19; target; June 20; WID: [RP-](file:///C:\Data\3GPP\archive\RAN\RAN%2384\Tdocs\RP-191563.zip)200122 SR; RP-200441) Documents in this agenda item will be handled in a break out session.

Tdoc Limitation: 2 tdocs

### 6.18.1 Organisational

Including incoming LSs, rapporteur inputs, etc.

Contributions in this AI are reserved for WI rapporteur inputs and do not count towards the tdoc limits.

### 6.18.2 RRC aspects

Including output of email discussion [Post109bis-e][934][PRN] Remaining open issues (Nokia). Contributions related to issues addressed by this email discussions should be avoided and are discouraged for this AI.

Including contributions/TPs on PRN-specific Class 3 ASN.1 review aspects (such aspects should anyway be raised in the email discussion [934]). No individual company CRs should be submitted.

Also including contributions on UE capability aspects.

### 6.18.3 Other aspects

Including non-RRC issues not addressed in email discussion [934].

Including contributions/TPs on TS 38.304 corrections. For these, no individual company CRs should be submitted: please consult with the 38.304 CR rapporteur first ([rprakash@qti.qualcomm.com](mailto:rprakash@qti.qualcomm.com)).

If needed, a summary document may also be utilized to treat this agenda item.

## 6.19 Other NR Rel-16 WIs/SIs

This agenda item is to be used for LSs and documents relating to Rel-16 NR but for which there is no existing RAN WI/SI (e.g. LSs from CT/SA requesting RAN2 action) or for which there is no allocated RAN2 time (e.g. some RAN4 led WIs with no RAN2 time but might require introduction of UE capability signalling).

Time budget: 0.5 TU

### 6.19.0 In-principle Agreed CRs

### 6.19.1 Other

Including outcome of email discussion [Post109bis-e][045][R16 Other] UL TX Switching-NR\_FR1 (China Telecom)

### 6.19.2 Corrections

Corrections to functionality previously introduced under this AI, i.e. introduced in R16 for WIs that doesn’t have a RAN WI or no time allocated in R2

## 6.20 NR TEI16 enhancements

Small Technical Enhancements to NR. TEI should be predominantly within a single WG and fully completed within the same quarter in all affected WGs. RAN2 impact of RAN1/4-led TEI shall be limited to RRC signalling of configuration parameters and UE capabilities (no MAC impact, no RRC procedural impact, etc). Please also see [RP-191602](file:///C:\Data\3GPP\TSGR\TSGR_84\docs\RP-191602.zip) endorsed at RAN#84. Please submit to 6.20.x. NOTE that proponent companies are responsible to ensure that correct CRs are provided in all groups for proposals that have impact in >1 working group.

Time budget: 1 TU

Tdoc Limitation: 2 tdocs. NOTE for TEI, the tdoc limitation applies to new proposals, not to open proposals since previous meeting(s), nor to corrections.

### 6.20.1 RAN2 led TEI16 enhancements - Control plane related

#### 6.20.1.0 In-principle Agreed CRs

#### 6.20.1.1 Open / ongoing proposals

Including outcome of email discussion [Post109bis-e][050][TEI16] Overheating (Huawei)

Including outcome of email discussion [Post109bis-e][051][TEI16] EN-DC cell reselection (CMCC)

Including outcome of email discussion [Post109bis-e][962][TEI16] Under-reporting CSI-RS Capabilities (NTT Docomo)

#### 6.20.1.2 New proposals

#### 6.20.1.3 Corrections

Corrections to functionality previously introduced as TEI16

### 6.20.2 RAN2 led TEI16 enhancements - User plane related

#### 6.20.2.0 In-principle Agreed CRs

#### 6.20.2.1 Open / ongoing proposals

Including outcome of email discussion [Post109bis-e][054][TEI16] Secondary DRX (Ericsson)

#### 6.20.2.2 New proposals

#### 6.20.2.3 Corrections

Corrections to functionality previously introduced as TEI16

### 6.20.3 TEI16 enhancements led by other WGs

Documents submitted to this agenda item will only be treated after a decision on the TEI has been made by another group and an LS informing RAN2 of their decision has been received. Tdoc limitation does not apply.

#### 6.20.3.0 In-principle Agreed CRs

#### 6.20.3.1 Open / ongoing proposals

#### 6.20.3.2 Corrections

Corrections to functionality previously introduced as TEI16

## 6.21 On demand SI in connected

On demand SI reception in RRC\_CONNECTED is relevant to several Rel-16 WIs (e.g. V2X, positioning). This agenda item is for the discussion of the generic procedure for on demand SI in RRC\_CONNECTED; WI specific details of the SI content should be discussed within the appropriate AI for that WI.

Tdoc Limitation: 1 tdoc

## 6.22 Physical layer enhancements for NR ultra-reliable and low latency case (URLLC)

(NR\_L1enh\_URLLC-Core; leading WG: RAN1; REL-16; target; June 20; WID: [RP-1915](file:///C:\Data\3GPP\TSGR\TSGR_84\docs\RP-191563.zip)84; SR: RP-200090). UL intra-UE prioritization and enhanced UL CG transmission is addressed under RAN2 IIOT WI (do not submit under this AI).

Time budget: 1 TU

Tdoc Limitation: 2 tdocs

### 6.22.1 Organizational

### 6.22.2 RRC Open Issues and Corrections

CR was endorsed last meeting. Corrections, Class 3 RIL issues. For accepted RIL issues, the proponent company may provide a discussion doc with annex TP (if needed) that do not count towards the tdoc limitation. Contributions should be reserved for more complicated issued and minor issues are expected to be resolved in RRC email discussions or by CR rapporteur without any tdoc.

### 6.22.3 MAC Open issues and corrections

CR was endorsed last meeting

# 7 Rel-16 LTE Work Items

Documents in these agenda items will be handled in break out sessions

## 7.0 LTE Rel-16 General

### 7.0.1 ASN.1 review

Including documents related to LTE ASN.1 review.

Including outcome of [Post109bis-e][932][LTE/NR/ASN.1]  Resolution to review issues S003, S005, B002, S046 (Samsung/Ericsson)

A web conference may be used for handling some of the discussions in this agenda item.

### 7.0.2 Features and UE capabilities

Including documents related to LTE UE capabilities based on RAN1/4 input. WI-specific capability contributions should be submitted to the individual WI agenda items.

A web conference may be used for handling some of the discussions in this agenda item.

**7.1    Additional MTC enhancements for LTE**

*(LTE\_eMTC5-Core; leading WG: RAN1; REL-16; started: Jun 18; target; June 20; WID:* [*RP-191356*](file:///C:\Users\NiNi\Data\3GPP\TSGR\TSGR_84\docs\RP-191356.zip)*; SR: RP-200309)*

*Time budget: 2.5 TU*

*Documents in this agenda item will be handled in a break out session.*

*Some sub-items in 7.1 and 7.2 may be treated jointly.*

7.1.1     Organisational

*Including incoming LSs, rapporteur inputs, running CRs.*

*A web conference may be used for handling some of the discussions in this AI.*

*One CR per specification will be provided by the corresponding rapporteur. No individual company CRs are expected. Companies should provide TPs when needed.*

7.1.2     Stand-alone deployment

*Including the outcome of [Post109bis-e][945][eMTC]  Standalone deployment – Remaining issues (Ericsson). This agenda item may utilize a summary document to facilitate treatment of topics during the e-meeting (decision to be made based on the submitted tdocs). A web conference will be used for handling the discussions in this AI.*

7.1.3     Mobility Enhancements

*This agenda item may utilize a summary document to facilitate treatment of topics during the e-meeting (decision to be made based on the submitted tdocs). A web conference will be used for handling the discussions in this AI.*

7.1.4     Connection to 5GC

*Connection to 5GC for MTC and NB-IoT is treated jointly under this AI. This agenda item may utilize a summary document to facilitate treatment of topics during the e-meeting (decision to be made based on the submitted tdocs). A web conference of an offline discussion will be used for handling the discussions in this AI.*

7.1.5     UE capabilities - MTC

*This agenda item may utilize a summary document to facilitate treatment of topics during the e-meeting (decision to be made based on the submitted tdocs). A web conference will be used for handling the discussions in this AI.*

7.1.6     ASN.1 review - MTC

*Including documents related to class 2/3 ASN.1 review issues that require WI-specific discussion. A web conference will be used for handling the discussions in this AI.*

7.1.7     Other

*Including documents related to MT early data transmission EDT, Scheduling multiple DL/UL transport blocks, Quality report in Msg3, MPDCCH performance improvement using CRS, Improvements for non-BL UEs, Co-existence with NR, and MTC specific issues.*

*This agenda item may utilize a summary document to facilitate treatment of topics during the e-meeting. A web conference may be used for handling some of the discussions in this AI.*

## 7.2 Additional enhancements for NB-IoT

(NB\_IOTenh3-Core; leading WG: RAN1; REL-16; started: Jun 18; target; June 20; WID: RP-200293; SR: RP-200440)

Time budget: 2.5 TU

Documents in this agenda item will be handled in a break out session

Some sub-items in 7.1 and 7.2 may be treated jointly.

### 7.2.1 Organisational

Including incoming LSs, draft TS, rapporteur inputs, etc

A web conference will be used for handling some of the discussions in this AI.

One CR per specification will be provided by the corresponding rapporteur. No individual company CRs are expected. Companies should provide TPs when needed.

### 7.2.2 UE-group wake-up signal (WUS)

UE group wake Up signal for MTC and NB-IoT is treated jointly under this Agenda Item.

This agenda item may utilize a summary document to facilitate treatment of topics during the e-meeting.

A web conference will be used for handling some of the discussions in this AI.

### 7.2.3 Transmission in preconfigured resources

Transmission in preconfigured resources for MTC and NB-IoT is treated jointly under this Agenda Item.

This agenda item may utilize a summary document to facilitate treatment of topics during the e-meeting.

A web conference will be used for handling some of the discussions in this AI.

### 7.2.4 NB-IoT Specific

NB-IoT specific topics

This agenda item may utilize a summary document to facilitate treatment of topics during the e-meeting.

A web conference will be used for handling some of the discussions in this AI.

Includes [Post109bis-e][944][NBIOT] CSS overlapping case for UE specific DRX (Sequans)

### 7.2.5 NB-IoT UE capabilities

This agenda item may utilize a summary document to facilitate treatment of topics during the e-meeting.

A web conference will be used for handling some of the discussions in this AI.

### 7.2.6 ASN.1 review of NB-IoT

*Including documents related to Class 2/3 ASN.1 review issues that require WI-specific discussion.*

A web conference will be used for handling some of the discussions in this AI.

## 7.3 Even further mobility enhancement in E-UTRAN

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

No documents should be submitted to 7.3. Documents under 7.3 will be treated together with documents in 6.9.

A web conference may be used for handling some of the discussions in this WI, and summary document may be provided for some agenda items under 7.3.

### 7.3.1 Organizational

Including incoming LSs and rapporteur inputs (if any).

Including outcome of [Post109bis-e][928][LTE MOB] Stage-2 CR (China Telecom)

### 7.3.2 Reduction in user data interruption during DAPS handover

This AI jointly addresses corrections to NR and LTE DAPS.

Including corrections to control and user plane for DAPS HO. All RRC-related corrections to DAPS should be submitted to ASN.1 review agenda items in 6.9.5 (NR RRC) and 7.3.4 (LTE RRC).

Tdoc Limitation per company: 2 tdocs

### 7.3.3 UE capabilities for conditional handover and DAPS

Including UE capability aspects of LTE mobility WI. Any input on UE capabilities from RAN1/4 will be handled in this agenda item.

Including outcome of [Post109bis-e][931][LTE MOB] UE capabilities for NR mobility (China Telecom)

Tdoc Limitation per company: 1 tdoc.

### 7.3.4 ASN.1 review of mobility WIs for LTE RRC

*This agenda item focuses on* ***LTE RRC*** *aspects of both LTE and NR mobility WIs – NR RRC aspects of both LTE and NR mobility WIs should be submitted to 6.9.5. Do not submit contributions on WI-specific open issues that are not captured in the current LTE RRC to this agenda item.*

All ASN.1 issues should be raised in RILs first – contributions where no RIL issue exists may not be treated.

Including contributions/TPs on RRC corrections based on review issues. For these, no individual company CRs should be submitted: please consult with the rapporteur of LTE RRC CR first ([cecilia.eklof@ericsson.com](mailto:cecilia.eklof@ericsson.com)).

### 7.3.5 Other

Only corrections not fitting other agenda items.

*Including CHO aspects that are LTE-specific* ***without*** *equivalent NR impacts: Do not use this AI for any item that can be discussed jointly for LTE and NR - Contributions on conditional handover that apply for both LTE and NR are treated jointly in under 6.9.3.*

Tdoc Limitation per company: 1 tdoc.

## 7.4 Further performance enhancement for LTE in high speed scenario

(LTE\_high\_speed\_enh2-Core; leading WG: RAN4; REL-16; started: Jun 18; target; Sep 19; WID: RP-181482)

Including documents related to WI-specific ASN.1 review issues.

A web conference may be used for handling some of the discussions in this agenda item.

## 7.5 Other LTE Rel-16 WIs

This agenda item is to be used for LSs and 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) or for which there is no allocated RAN2 time.

A web conference may be used for handling some of the discussions in this WI.

### 7.5.0 In-principle Agreed CRs

### 7.5.1 Other

## 7.6 LTE TEI16 enhancements

Small Technical Enhancements to LTE. TEI should be predominantly within a single WG and fully completed within the same quarter in all affected WGs. RAN2 impact of RAN1/4-led TEI shall be limited to RRC signalling of configuration parameters and UE capabilities (no MAC impact, no RRC procedural impact, etc). Please also see RP-191602 endorsed at RAN#84.

Including documents related to TEI16 ASN.1 review issues.

New TEI16 proposals are discouraged and may be deprioritized in this meeting.

A web conference may be used for handling some of the discussions in this agenda item.

### 7.6.0 In-principle Agreed CRs

### 7.6.1 Other

## 7.7 Support of Indian Navigation Satellite System (NavIC)

(LCS\_NAVIC; leading WG: RAN2; REL-16; started: Sept 19; target; March-20; WID: RP-192350)

Time budget: 0 TU

This item is 100%

## 7.8 DL MIMO efficiency enhancements for LTE

(LTE\_DL\_MIMO\_EE-Core; leading WG: RAN1; REL-16;target; March-20; WID: RP-182901)

Including documents related to WI-specific ASN.1 review issues.

A web conference may be used for handling some of the discussions in this agenda item.

## 7.9 LTE-based 5G Terrestrial Broadcast

(LTE\_terr\_bcast-Core; leading WG: RAN1; REL-16; target; March-20; WID: RP-182924)

Including documents related to WI-specific ASN.1 review issues.

A web conference may be used for handling some of the discussions in this agenda item.

# Breakout session reports

No documents shall be submitted to this AI or its sub-AIs. It is only for at-meeting-generated contents.

Breakout session reports will be approved by email.

### 8.1 Session on LTE legacy, LTE TEI16 and NR/LTE Rel-16 Mobility

### 8.2 Session on SRVCC, CLI, PRN, eMIMO, RACS

### 8.3 Session on eMTC

### 8.4 Session on NR-U, Power Savings, NTN and 2-step RACH

### 8.5 Session on Rel-15 and 16 LTE and NR positioning

### 8.6 Session on SON/MDT

### 8.7 Session on NB-IoT

### 8.8 Session on LTE V2X and NR V2X

# Appendix - Additional Guidance

This subclause is not an Agenda Item. Including WI codes for Agenda Items with multiple WIs.

# EUTRA corrections Rel-15 and earlier

## NB-IoT corrections Rel-15 and earlier

Includes NB-IoT corrections, related to the following WIs:

(NB\_IOT-Core; leading WG: RAN1; REL-13; started: Sep. 15; target: Jun. 16; WID: [RP-152284](file:///C:\Data\3GPP\Extracts\RP-152284.docx))

(NB\_IOTenh-Core; leading WG: RAN1; REL-14; started: June 16; closed: Jun. 17; WID: [RP-171060](file:///C:\Data\3GPP\Extracts\RP-171060.doc))

(NB\_IOTenh2-Core; leading WG: RAN1; REL-15; started: Mar. 17; closed: Sep. 18: WID: [RP-182114](file:///C:\Data\3GPP\archive\TSGR\TSGR_81\Docs\RP-182114.zip))

## eMTC corrections Rel-15 and earlier

Includes MTC, eMTC and Coverage Enhancement corrections, related to the following WIs:

(LC\_MTC\_LTE-Core, leading WG: RAN1, REL-12, started: Jun 13, closed: Dec 14, WID: [RP-140522](file:///C:\Data\3GPP\Extracts\RP-140522.doc))

(Cov\_Enh\_LTE-Core, leading WG: RAN1, REL-12, started: Jun.13, closed: Jun.14, WID: [RP-130833](file:///C:\Data\3GPP\archive\TSGR\TSGR_60\Docs\RP-130833.zip))

(MTCe\_RAN-Core, leading WG: RAN2, REL-12, started: Dec.13, closed: Sep.14, WID: [RP-132053](file:///C:\Data\3GPP\archive\TSGR\TSGR_62\Docs\RP-132053.zip))

(LTE\_MTCe2\_L1-Core, leading WG: RAN1, REL-13; started: Sep. 14, closed: Mar. 16, WID: [RP-150492](file:///C:\Data\3GPP\Extracts\RP-150492.doc))

(LTE\_feMTC-Core; leading WG: RAN1; REL-14; started: June 16; closed: Jun. 17; WID: [RP-170532](file:///C:\Data\3GPP\Extracts\RP-170532%20Revised%20WID%20for%20Further%20Enhanced%20MTC.doc))

(LTE\_eMTC4-Core; leading WG: RAN1; REL-15; started: Mar. 17; closed: Dec. 18: WID: [RP-172811](file:///C:\Data\3GPP\Extracts\RP-172811%20Revised%20WID%20on%20Even%20further%20enhanced%20MTC%20for%20LTE.doc))

## V2X and Sidelink corrections Rel-15 and earlier

Includes V2X, D2D and Sidelink corrections, related to the following WIs:

(LTE\_D2D\_Prox-Core, leading WG: RAN1, REL-12, started: Mar.14, closed: Mar.15, WID: [RP-142043](file:///C:\Data\3GPP\Extracts\RP-142043%20LTE%20Device%20to%20Device%20Proximity%20Services%20-%20Work%20Item.doc))

(LTE\_eD2D\_Prox-Core, leading WG: RAN2, REL-13; started: Dec. 14, closed: Mar. 16, WID: [RP-150441](file:///C:\Data\3GPP\Extracts\RP-150441%20Revised%20WID%20Enhanced%20LTE%20Device%20to%20Device%20Proximity%20Services.doc))

(LTE\_SL\_V2V-Core; leading WG: RAN1; started: Dec. 15; closed: Sept 16; WID: [RP-161603](file:///C:\Data\3GPP\archive\TSGR\TSGR_73\Docs\RP-161603.zip))

(LTE\_V2X-Core, leading WG: RAN1; REL-14; started: June 16; closed: Mar. 17; WID: [RP-162519](file:///C:\Data\3GPP\archive\TSGR\TSGR_74\Docs\RP-162519.zip))

(LTE\_eV2X-Core; leading WG: RAN1; REL-15; started: Mar. 17; closed: Sep. 18: WID: [RP-171740](file:///C:\Data\3GPP\Extracts\RP-171740%20Revision%20of%20V2X%20phase%202%20WID.doc))

## Positioning corrections Rel-15 and earlier

Includes positioning corrections, e.g. related to the following WIs:

(UTRA\_LTE\_iPos\_enh-Core; leading WG: RAN2; REL-13; started: Sep. 15; closed: Dec 15; WID: [RP-152251](file:///C:\Data\3GPP\Extracts\RP-152251%20(revision%20of%20RP-152008)%20Revised%20work%20item%20proposal%20Positioning%20enhancements%20for%20UTRA%20and%20LTE.doc))

(UTRA\_LTE\_iPos\_enh2-Core; leading WG: RAN2; REL-14; started: Mar. 16; closed: Dec. 16; WID: [RP-162026](file:///C:\Data\3GPP\Extracts\RP-162026_Revised%20Work%20Item_Further%20Indoor%20Positioning%20enhancements.doc))

(LCS\_LTE\_acc\_enh-Core; leading WG: RAN2; REL-15; started: Mar. 17; closed: Sep. 18: WID: [RP-181298](file:///C:\Data\3GPP\Extracts\RP-181298%20Update%20of%20WI%20in%20RP-172313.doc))

## Other LTE corrections Rel-15 and earlier

Includes corrections to the following WIs:

LTE WIs Rel-14 and earlier:

(LTE-L23, leading WG: RAN2, REL-8, started: Sep. 06, closed: Dec. 08, WID: [RP-080747](file:///C:\Data\3GPP\Extracts\RP-080747%20Revised%20LTE%20WID.doc))

(LTE\_CA-Core, leading WG: RAN1, REL-10, started: Dec. 09, closed: June 11, WID: [RP-100661](file:///C:\Data\3GPP\archive\TSGR\TSGR_48\Docs\RP-100661.zip))

(LTE\_UL\_MIMO-Core, leading WG: RAN1, REL-10, started: Dec.09, closed: June 11, WID: [RP-100959](file:///C:\Data\3GPP\archive\TSGR\TSGR_49\Docs\RP-100959.zip))

(LTE\_eDL\_MIMO-Core, leading WG: RAN1, REL-10, started: Dec.09, closed: March 11, WID: [RP-100196](file:///C:\Data\3GPP\archive\TSGR\TSGR_47\Docs\RP-100196.zip))

(LTE\_Relay-Core, leading WG: RAN1, REL-10, started: Dec. 09, closed: June 11, WID: [RP-110911](file:///C:\Data\3GPP\archive\TSGR\TSGR_52\Docs\RP-110911.zip))

(MBMS\_LTE\_enh-Core, leading WG: RAN2, REL-10, started: June 10, closed: March 11, WID: [RP-101244](file:///C:\Data\3GPP\archive\TSGR\TSGR_50\Docs\RP-101244.zip))

(MDT\_UMTSLTE-Core, leading WG: RAN2, REL-10, started: Dec. 09, closed: June 11, WID: [RP-100360](file:///C:\Data\3GPP\Extracts\RP-100360.doc))

(eICIC\_LTE-Core, leading WG: RAN1, REL-10, started: March 10, closed: June 11, WID: [RP-100383](file:///C:\Data\3GPP\archive\TSGR\TSGR_47\Docs\RP-100383.zip))

(SONenh\_LTE-Core, leading WG: RAN3, REL-10, started: March 10, closed: June 11, WID: [RP-101004](file:///C:\Data\3GPP\archive\TSGR\TSGR_49\Docs\RP-101004.zip))

(LTE\_CA\_enh-Core, leading WG: RAN1, REL-11, started: March 11, closed: Mar.13, WID: [RP-121999](file:///C:\Data\3GPP\archive\TSGR\TSGR_58\Docs\RP-121999.zip))

(MBMS\_LTE\_SC-Core, leading WG: RAN2, REL-11, started: June 10, closed: Sep.12, WID: [RP-120258](file:///C:\Data\3GPP\archive\TSGR\TSGR_55\Docs\RP-120258.zip))

(LTE\_eDDA-Core, leading WG: RAN2, REL-11, started: March 11, closed: Dec.12, WID: [RP-120256](file:///C:\Data\3GPP\archive\TSGR\TSGR_55\Docs\RP-120256.zip))

(LCS\_LTE-NBPS-Core, leading WG: RAN2, REL-11, started: March 09, closed: June. 13, WID: [RP-131259](file:///C:\Data\3GPP\archive\TSGR\TSGR_61\Docs\RP-131259.zip))

(eICIC\_enh\_LTE-Core, leading WG: RAN1, REL-11, started: March 11, closed: Dec. 12, WID: [RP-120860](file:///C:\Data\3GPP\archive\TSGR\TSGR_56\Docs\RP-120860.zip))

(SPIA\_IDC\_LTE-Core, leading WG: RAN2, REL-11, started: Sep.11, closed: Dec. 12, WID: [RP-111355](file:///C:\Data\3GPP\archive\TSGR\TSGR_53\Docs\RP-111355.zip))

(COMP\_LTE\_DL-Core, leading WG: RAN1, REL-11, started: Sep.11, closed: Dec.12, WID: [RP-111365](file:///C:\Data\3GPP\archive\TSGR\TSGR_53\Docs\RP-111365.zip))

(COMP\_LTE\_UL-Core, leading WG: RAN1, REL-11, started: Sep.11, closed: Dec.12, WID: [RP-111365](file:///C:\Data\3GPP\archive\TSGR\TSGR_53\Docs\RP-111365.zip))

(LTE\_TDD\_add\_subframe, leading WG: RAN1, REL-11, started: March 12; closed: Sep. 12, WID: [RP-120384](file:///C:\Data\3GPP\archive\TSGR\TSGR_55\Docs\RP-120384.zip))

(FS\_HetNet\_eMOB\_LTE, leading WG: RAN2, REL-11, started: March 11, closed: Sep. 12, WID: [RP-110709](file:///C:\Data\3GPP\Extracts\RP-110709.doc))

(LTE\_enh\_dl\_ctrl-Core, leading WG: RAN1, REL-11, started: Dec. 11, closed: Dec. 12, WID: [RP-120871](file:///C:\Data\3GPP\archive\TSGR\TSGR_56\Docs\RP-120871.zip))

(LTE\_SC\_enh\_dualC-Core, leading WG: RAN2, REL-12, started: Dec.13, closed: Dec.14, WID: [RP-141797](file:///C:\Data\3GPP\archive\TSGR\TSGR_66\Docs\RP-141797.zip))

(LTE\_SC\_enh\_L1-Core, leading WG: RAN1, REL-12, started: Dec.13, closed: Dec.14, WID: [RP-132073](file:///C:\Data\3GPP\archive\TSGR\TSGR_62\Docs\RP-132073.zip))

(MBMS\_LTE\_OS-Core, leading WG: RAN2, REL-12, started: Sep.13, closed: Dec.14, WID: [RP-140282](file:///C:\Data\3GPP\Extracts\RP-140282_RevWID_MBMS_MDT.doc))

(LTE\_NAICS-Core, leading WG: RAN1, Rel-12, started: Mar 14, closed: Dec.14, WID: [RP-140519](file:///C:\Data\3GPP\Extracts\RP-140519.doc))

(GCSE\_LTE-MBMS\_CM-Core, leading WG: RAN3, started: Sep. 14, closed: Mar. 2015, WID: [RP-141035](file:///C:\Data\3GPP\Extracts\RP-141035.doc))

(LTE\_CA\_TDD\_FDD-Core, leading WG: RAN1, REL-12, started: Jun 13, closed: Jun 14, WID: [RP-140465](file:///C:\Data\3GPP\Extracts\RP-140465%20Revised%20WID%20TDD-FDD%20joint%20operation%20including%20CA.doc))

(LCS\_BDS-LTE-Core, leading WG: RAN2, REL-12, started: Mar 13, closed: Dec 13, WID: [RP-130416](file:///C:\Data\3GPP\archive\TSGR\TSGR_59\Docs\RP-130416.zip))

(LTE\_eDL\_MIMO\_enh-Core, leading WG: RAN1, REL-12, started: Sep 12, closed: June 14, WID: [RP-121416](file:///C:\Data\3GPP\archive\TSGR\TSGR_57\Docs\RP-121416.zip))

(HetNet\_eMOB\_LTE-Core, leading WG: RAN2, REL-12, started: Dec.12, , closed: Sep 14, WID: [RP-122007](file:///C:\Data\3GPP\archive\TSGR\TSGR_58\Docs\RP-122007.zip))

(LTE\_TDD\_eIMTA-Core, leading WG: RAN1, REL-12, started: Dec 12, closed: Jun.14, WID: [RP-121772](file:///C:\Data\3GPP\archive\TSGR\TSGR_58\Docs\RP-121772.zip))

(SCM\_LTE-Core, leading WG: RAN2, REL-12, started: Mar.14, closed: Sep.14, WID: [RP-140434](file:///C:\Data\3GPP\Extracts\RP-140434_SCM%20WID.doc))

(LTE\_LAA-Core, leading WG: RAN1, REL-13; started: June 15, closed: Dec. 15, WID: [RP-151045](file:///C:\Data\3GPP\Extracts\RP-151045.doc))

(LTE\_CA\_enh\_b5C-Core, leading WG: RAN1, REL-13; started: Dec. 14, closed: Dec. 15, WID: [RP-151984](file:///C:\Data\3GPP\Extracts\RP-151984.doc))

(LTE\_SC\_PTM-Core, leading WG: RAN2, REL-13; started: June 15, closed: Dec. 15, WID: [RP-151110](file:///C:\Data\3GPP\Extracts\RP-151110%20New%20WI%20proposal%20on%20SC-PTM%20v3.doc))

(LTE\_MC\_load-Core, leading WG: RAN2, started: Mar. 15, closed: Dec. 15, WID: [RP-152181](file:///C:\Data\3GPP\Extracts\RP-152181%20Revised%20WI%20Multicarrier%20Load%20Distribution%20of%20UEs%20in%20LTE.doc))

(LTE\_dualC\_enh-Core, leading WG: RAN2, started: Mar. 15, closed: Dec. 15, WID: [RP-151739](file:///C:\Data\3GPP\archive\TSGR\TSGR_70\Docs\RP-151739.zip))

(LTE\_extDRX-Core; leading WG: RAN2; started: Mar. 15; closed: Mar. 16; WID: [RP-150493](file:///C:\Data\3GPP\Extracts\RP-150493-WID_Extended-DRX.doc))

(LTE\_EBF\_FDMIMO-Core; leading WG: RAN1; started: June. 15; closed: Dec. 15; WID: [RP-151085](file:///C:\Data\3GPP\Extracts\RP-151085%20WID_EBF_FD-MIMO.doc))

(LTE\_eMDT2-Core; leading WG: RAN2; started: Sep. 15; closed: Dec 15; WID: [RP-151611](file:///C:\Data\3GPP\Extracts\RP-151611.docx))

(LTE\_WLAN\_radio-Core, leading WG: RAN2, started: Mar. 15, closed: Mar. 16, WID: [RP-152213](file:///C:\Data\3GPP\Extracts\RP-152213%20Revised-LTE-WIFI-WI-RAN-70-v2.doc))

(LTE\_WLAN\_radio\_legacy-Core; leading WG: RAN2; started: Sep. 15; closed: Mar 15; WID: [RP-151615](file:///C:\Data\3GPP\archive\TSGR\TSGR_69\Docs\RP-151615.zip))

(LTE\_eLAA-Core; leading WG: RAN1; REL-14; started: Dec. 15; closed: Mar. 17; WID:[RP-162229](file:///C:\Data\3GPP\archive\TSGR\TSGR_74\Docs\RP-162229.zip))

(LTE\_WLAN\_aggr-Core; leading WG: RAN2; REL-14; started: Mar. 16; closed: Mar. 17; WID: [RP-160923](file:///C:\Data\3GPP\Extracts\RP-160923%20eLWA-WID.doc))

(LTE\_eMob-Core; leading WG: RAN2; REL-14; started: Mar. 16; closed: Mar. 17; WID:[RP-162503](file:///C:\Data\3GPP\Extracts\RP-162503%20Revised%20WID%20Mobility%20enhancements%20for%20LTE.docx))

(LTE\_LATRED\_L2-Core; leading WG: RAN2; REL-14; started: Mar. 16; closed: Sep. 16; WID: [RP-160667](file:///C:\Data\3GPP\Extracts\RP-160667%20L2%20New%20WID%20for%20L2%20latency%20reduction%20techniques%20for%20LTE.doc))

(MBMS\_LTE\_enh2-Core; leading WG: RAN1; REL-14; started: Mar. 16; closed: Sep. 17; WID:[RP-162231](file:///C:\Data\3GPP\Extracts\RP-162231%20updated%20WID%20eMBMS%20enhancements%20for%20LTE.doc)) (LTE\_SRS\_switch; leading WG: RAN1; REL-14; started: Mar.16: closed: Dec. 16; WID: [RP-160935](file:///C:\Data\3GPP\Extracts\RP-160935%20WI%20on%20SRS%20carrier%20switching.doc))

(LTE\_meas\_gap\_enh-Core; leading WG: RAN4; REL-14; started: Mar. 16; closed: Jun. 17; WID: [RP-160912](file:///C:\Data\3GPP\Extracts\RP-160912.doc))

(LTE\_high\_speed-Core; leading WG: RAN4; REL-14; started: Dec. 15. 16; closed: Dec. 16; WID: [RP-160172](file:///C:\Data\3GPP\archive\TSGR\TSGR_71\Docs\RP-160172.zip))

(LTE\_VoLTE\_ViLTE\_enh; leading WG: RAN2; REL-14; started: Sep. 16; closed: Mar. 17: WID: [RP-161856](file:///C:\Data\3GPP\archive\TSGR\TSGR_73\Docs\RP-161856.zip))

(LTE\_UE\_cat\_1Rx-Core; leading WG: RAN4; REL-14; started: Sep. 16; closed: Jun. 17: WID: [RP-171149](file:///C:\Data\3GPP\archive\TSGR\TSGR_76\Docs\RP-171149.zip))

(LTE\_UL\_CAP\_enh-Core; leading WG: RAN1; REL-14; started: Mar. 16; closed: Mar. 17: WID: [RP-162488](file:///C:\Data\3GPP\Extracts\RP-162488%20WID.doc))

(LTE\_eFDMIMO-Core; leading WG: RAN1; REL-14; started: Mar. 2016; closed: Mar. 17: WID: [RP-160623](file:///C:\Data\3GPP\Extracts\RP-160623%20WID_eFD-MIMO.doc))

(LTE\_MUST-Core; leading WG: RAN1; REL-14; started: Mar. 16; closed: Dec. 16: WID: [RP-161019](file:///C:\Data\3GPP\archive\TSGR\TSGR_72\Docs\RP-161019.zip))

(eDECOR-UTRA\_LTE-Core; leading WG: RAN3; REL-14; started: Dec. 16; closed: Mar. 17: WID: [RP-162543](file:///C:\Data\3GPP\archive\TSGR\TSGR_74\Docs\RP-162543.zip))

Joint UMTS/LTE WIs Rel-14 and earlier:

(SIMTC-RAN\_OC-Core, leading WG: RAN2, REL-11, started: Sep.11, closed: Sep. 12, WID: [RP-111373](file:///C:\Data\3GPP\archive\TSGR\TSGR_53\Docs\RP-111373.zip))

(eMDT\_UMTSLTE-Core, leading WG: RAN2, REL-11, started: Sep.11, closed: Dec.12, WID: [RP-121204](file:///C:\Data\3GPP\archive\TSGR\TSGR_57\Docs\RP-121204.zip))

(SONenh2\_LTE\_UTRA-Core, leading WG: RAN3, REL-11, started: Sep.11, closed: Dec.12, WID: [RP-120314](file:///C:\Data\3GPP\archive\TSGR\TSGR_55\Docs\RP-120314.zip))

(rSRVCC-GERAN, leading WG: GERAN2, REL-11, started: Sep.11, closed: Nov.13, WID: GP-111290)

(EHNB\_enh3-Core, leading WG: RAN3, REL-12, started: Sep.12, closed: Dec 13, WID: [RP-130741](file:///C:\Data\3GPP\archive\TSGR\TSGR_60\Docs\RP-130741.zip))

(UTRA\_LTE\_WLAN\_interw-Core, leading WG: RAN2, REL-12, started: Dec.13, closed: Sep.14, WID: [RP-132101](file:///C:\Data\3GPP\archive\TSGR\TSGR_62\Docs\RP-132101.zip))

(LTE\_UTRA\_IncMon-Core, leading: RAN4, REL-12, started: Dec.13, closed: Dec. 14, WID: [RP-132061](file:///C:\Data\3GPP\archive\TSGR\TSGR_62\Docs\RP-132061.zip))

(ACDC-RAN-Core; leading WG: RAN2; REL-13; started: Mar. 15; closed: Dec. 15; [RP-150662](file:///C:\Data\3GPP\Extracts\RP-150662%20RAN%20ACDC%20WID%20Rev.doc))

LTE Rel-15:

(LTE\_STTIandPT-core; leading WG: RAN1; REL-15; started: June 16; closed: Sep. 18; WID: [RP-171468](file:///C:\Data\3GPP\archive\TSGR\TSGR_76\Docs\RP-171468.zip))

(LTE\_ViLTE\_enh2-Core; leading WG: RAN2; REL-15; started: Mar. 17; closed: Sep. 18: WID: [RP-181746](file:///C:\Data\3GPP\archive\TSGR\TSGR_81\Docs\RP-181746.zip))

(LTE\_QMC\_Streaming; leading WG: RAN2; REL-15; started: Mar. 17; closed: Sep 18: WID: [RP-181640](file:///C:\Data\3GPP\archive\TSGR\TSGR_81\Docs\RP-181640.zip))

(LTE\_5GCN\_connect-Core; leading WG: RAN2; REL-15; started: Mar. 17; closed: Sep. 18: WID: [RP-181680](file:///C:\Data\3GPP\Extracts\RP-181680%20Revision%20of%20WID%20LTE-5GC.doc))

(LTE\_euCA-Core; leading WG: RAN2; REL-15; started: Mar. 17; closed: Sep. 18: WID: [RP-180561](file:///C:\Data\3GPP\archive\TSGR\TSGR_79\Docs\RP-180561.zip))

(LTE\_1024QAM\_DL-Core; leading WG: RAN1; REL-15; started: Mar. 17; closed: Mar. 18: WID: [RP-181670](file:///C:\Data\3GPP\Extracts\RP-181670%20Revised%20WI%20-%20LTE_HCS_RAN%2381.doc))

(LTE\_unlic-Core; leading WG: RAN1; REL-15; started: Mar. 17; closed: Jun. 18: WID: [RP-180402](file:///C:\Data\3GPP\archive\TSGR\TSGR_79\Docs\RP-180402.zip))

(LTE\_HRLLC-Core; leading WG: RAN1; REL-15; started: Mar. 17; closed: Sep. 18: WID: [RP-181259](file:///C:\Data\3GPP\archive\TSGR\TSGR_80\Docs\RP-181259.zip))

(LTE\_UDC-Core; leading WG: RAN2; Rel-15; started Sep 17; closed: Sep 18; WID [RP-180914](file:///C:\Data\3GPP\Extracts\RP-180914-revised%20WID_on%20UDC.doc))

(feCOMP\_LTE-Core; leading WG: RAN1; REL-15; started: Mar. 17; closed: Sep. 18: WID: [RP-182004](file:///C:\Data\3GPP\archive\TSGR\TSGR_81\Docs\RP-182004.zip))

(LTE\_Aerial-Core;leading WG: RAN2; REL-15; started: Dec. 17; closed: Sep. 18: WID:[RP-181310](file:///C:\Data\3GPP\archive\TSGR\TSGR_80\Docs\RP-181310.zip))

(LTE\_MDT\_BT\_WLAN-Core; leading WG: RAN2; REL-15; started: Dec. 17; closed: Sep. 18: WID: [RP-181743](file:///C:\Data\3GPP\archive\TSGR\TSGR_81\Docs\RP-181743.zip))

(INOBEARRAN-Core ; leading WG: RAN2; REL-15; started: Dec. 17; closed: Sep. 18: WID: [RP-182133](file:///C:\Data\3GPP\Extracts\RP-182133_INOBEARRAN_WID_v05.doc))