3GPP TSG-RAN WG2 Meeting #109-e R2-19xxxxx

**Electronic, 24 Feb – 6 Mar 2020**

Source: RAN2 Chairman (Mediatek)

Title: Agenda

# 1 Opening of the meeting

**This e-Meeting**

- This e-Meeting will follow 3GPP principles for e-Meetings, e.g. an e-Meeting is an ad-hoc meeting that do not count towards a company’s voting rights.

- RAN2 109 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 meeting.

- There will be some more leeway than usual to re-discuss or post-change agreements made at R2 109 electronic.

- Recording of voice or video at meetings is not used in 3GPP. This applies also to this e-Meeting. No specific actions are taken to prevent the recording of web conferences.

- Descriptions on how this meeting is conducted can be found in tdoc on RAN2 109-e Methods and Guidance under agenda item 2.4 below

## 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

Not applicable

## 1.3 Other

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| 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.

## 1.4 Statement Regarding Engagement with Companies Added to the U.S. Export Administration Regulations (EAR) Entity List in 3GPP Activities

|  |
| --- |
| *Updated 2019-10-10*  **1. Public Information is Not Subject to EAR**  3GPP is an open platform where all contributions (including technology protected or not by patent) made by the different Individual Members under the membership of each respective Organizational Partner are publicly available. Indeed, contributions by all and any Individual Members are uploaded to a public file server when received and then the documents are effectively in the public domain.  In addition, since membership of email distribution lists is open to all, documents and emails distributed by that means are considered to be publicly available.  As a result, information contained in 3GPP contributions, documents, and emails distributed at 3GPP meetings or by 3GPP email distribution lists, because it is made available to the public without restrictions upon its further dissemination, is not subject to the export restrictions of the EAR.  Meeting minutes are maintained for 3GPP meetings. Such meeting minutes for 3GPP meetings are made available to the public without restrictions upon its further dissemination. As a result, information, including information conveyed orally, contained in 3GPP meetings is not subject to the export restriction of the EAR; this would include information conveyed during side meetings that may occur during the main meetings, if these meetings are open to any participants and the results of all said meetings are publicly available without restrictions upon their further dissemination.  **2. Non-Public Information**  Non-public information refers to the information not contained or not intended to be contained in 3GPP contributions, documents or emails. Such non-public information may be disclosed during informal meetings, exchanges, discussions or any form of other communication outside the 3GPP meetings and email distribution lists, and may be subject to the EAR.  **3. Other Information**  Certain encryption software controlled under the International Traffic in Arms Regulations (ITAR), even if publicly available, may still be subject to US export controls other than the EAR.  **4. Conduct of Meetings**  The situation should be considered as "business as usual" during all the meetings called by 3GPP.  **5. Responsibility of Individual Members**  It should be remembered that contributions, meetings, exchanges, discussions or any form of other communication in or outside the 3GPP meetings are of the accountability, integrity and the responsibility of each Individual Member. In addition, Individual Members remain responsible for ensuring their compliance with all applicable export control regulations, including but not limited to EAR.  Individual Members with questions regarding the impact of laws and regulations on their participation in 3GPP should contact their companies’ legal counsels. |

# 2 General

**Agenda Additional Instructions - Scope**

Incoming LS’es are handled. As usual it is up to session chair which ones to treat (and related tdocs).

R15 and earlier: For R15 and earlier releases, only documents on important and urgent issues shall be submitted and treated. No text enhancements without behavioural or functional change.

Email Discussions [108#xx] will be treated.

R16 CRs: It is planned that R16 CRs for all WIs are agreed at R2 109e and submitted to eRP (March) for approval.

R16 Stage-2: No or minimal corrections for Stage-2 TS, i.e. only input email discussions and minimal corrections needed for approval of current CRs as baseline.

Easy Agreements: For R16, R2 109e shall focus on “easy” agreements. Topics/proposals that need extensive discussions (e.g. highly controversial ones) shall be avoided, i.e. not submitted, not treated, de-prioritized, postponed etc.

TEI16: For TEI16, no treatment of new proposals, Email discussions [108#xx] will be treated. In-principle agreed CRs will be treated. May treat open proposals for which only CRs remain, e.g. with status last meeting, “Agreed, see CRs next meeting”. Could consider to start email discussions to next meeting, e.g. based on new incoming LSes.

R16 UE capabilities: TBD to what extent R16 UE capabilities is treated at R2 109e This will have lower priority. CRs are not required, but could be provided if ready for some specific WI.

**Agenda Additional Instructions - Summary of tdocs**

In particular for R16, the Intention is to treat summaries that summarize contents of submitted tdocs rather than submitted tdocs for R16. Tdocs that are covered by a summary are to be noted if the summary is treated.

Where indicated in the agenda or later in chair notes, the tdocs submitted to a sub-agenda item or on a specific sub-topic, are summarized in a summary tdoc by an appointed rapporteur. It is the task of the rapporteur to reflect submitted proposals in a neutral way, group, merge and structure to facilitate easy treatment. At this meeting it is also the task of the rapporteur to suggest potential easy agreements for treatment and suggest likely controversial proposals for postponement. There may be an email discussion for each summary that may start as soon as there is a first summary draft, e.g. before submission. When such email discussion takes place during the tdoc review week it is considered a) the purpose is mainly to check correctness and get immediate comments/suggestions b) ambition level is best effort.

Note: Time Budget Comments remain in this document only for reference. They are not applicable for R2 109e.

## 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.

No documents should be submitted to 4. Please submit to 4.x

NOTE For R2 109e for R15 and earlier releases, only documents on important and urgent issues shall be submitted and treated. No text enhancements without behavioural or functional change.

## 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.

## 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.

This agenda item may not be treated during the e-meeting. No web conference is planned for this agenda item

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

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

## 4.4 Positioning corrections Rel-15 and earlier

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

## 4.5 Other LTE corrections Rel-15 and earlier

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

This agenda item will utilize a summary document to facilitate treatment of topics during the e-meeting. This may lead to postponement of some items to next meeting. No web conference is planned for this agenda item.

Summary document to be provided by the NN.

# 5 WI: New Radio (NR) Access Technology

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

NOTE For R2 109e for R15 and earlier releases, only documents on important and urgent issues shall be submitted and treated. No text enhancements without behavioural or functional change.

## 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.

### 5.2.2 Stage 2 corrections for TS 37.340

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

### 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.

## 5.3 Stage 3 user plane

Essential functional corrections.

### 5.3.1 MAC

### 5.3.2 RLC

### 5.3.3 PDCP

### 5.3.4 SDAP

## 5.4 Stage 3 control plane

Essential functional corrections.

### 5.4.1 NR RRC

Including all architecures

#### 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

### 5.4.3 UE capabilities and Capability Coordination

Including Late Drop

Including outcome of the email discussion [108#04][R15 NR] Support of 70MHz channel bandwidth (Huawei)

### 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)

## 5.5 Void

# 6 Rel-16 NR Work Items

## 6.0 Rel-16 Organizational

### 6.0.1 RRC

Cross WI issues. CR merge issues. Organizational. Only rapporteurs input (TS rapporteur or running CR editor) is expected.

Including outcome of the email discussion [108#28][R16 RRC] RRC Merge (Ericsson Samsung)

### 6.0.2 Feature List and UE capabilities

Cross WI issues. Organizational. Only rapporteurs input (TS rapporteur or running CR editor) is expected.

### 6.0.3 Other

Other Cross WI issues, e.g. MAC issues. Only rapporteurs input (TS rapporteur or running CR editor) is expected.

## 6.1 Integrated Access and Backhaul for NR

(NR\_IAB-Core; leading WG: RAN2; REL-16; started: Dec 18; target; Mar 20; WID: RP-192188)

Time budget: 3 TU

Tdoc Limitation: 12 tdocs

### 6.1.1 Organisational

Including incoming LSs, draft TS, rapporteur inputs, etc

Including outcome of the email discussion [108#46][IAB] Feature List (Ericsson)

Including outcome of the email discussion [108#31][IAB] Running CR 38.331 36.331 (Ericsson)

Including outcome of the email discussion [108#51][IAB] Running CR 38.340 (Huawei)

### 6.1.2 Stage-2 and general

Including principles and higher level aspects e.g. that involve both user plane and control plane, multi-connectivity etc.

R2 109e: R16 Stage-2: No or minimal corrections for Stage-2 TS, i.e. only input email discussions and minimal corrections needed for approval of current CRs as baseline.

### 6.1.3 BAP functionality

Routing, Bearer Mapping, BAP based Flow Control, Other

Summary on BAP functionality (Huawei)

### 6.1.4 User plane aspects

User plane aspects not covered by BAP, e.g. Scheduling and QoS, LCID extension..

Summary on IAB MAC impacts (Samsung)

### 6.1.5 Control plane aspects

#### 6.1.5.2 Configuration

Summary on IAB Configuration except IP address (Ericsson)

Summary on IAB IP address configuration (Samsung).

#### 6.1.5.3 Other

Barring, Access etc

Summary on Barring, access etc (Ericsson)

## 6.2 NR-based Access to Unlicensed Spectrum

(NR\_unlic-Core; leading WG: RAN1; REL-16; started: Dec 18; target; Mar 20; WID: [RP-191575](file:///C:\Data\3GPP\Extracts\RP-191575%20Revised%20WID%20NR-U.doc); 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: 9 tdocs

### 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.

Rapporteur of WI can submit a paper on UE capabilities for informational purposes, but it will not be treated during e-meeting

Including outcome of the email discussion [108#38][NR-U] Running 38.331 (Qualcomm)

Including outcome of the email discussion [108#74][NR-U] Running 38.300 (Qualcomm)

Including outcome of the email discussion [108#75][NR-U] Running 38.321 (Ericsson)

Including outcome of the email discussion [108#76][NR-U] Running 38.304 (Qualcomm)

Including outcome of the email discussion [108#77][NR-U] Running 37.340 (Oppo)

### 6.2.2 User plane

#### 6.2.2.1 RACH

Aspects of 2/4 step RACH procedure specific to unlicensed operation; including supporting extended RAR window, and LBT impact.

ONLY NEW CRITICAL OPEN Issues that are not identified in email discussions. Contributions should NOT discuss open issues in the email discussion

#### 6.2.2.2 Handling UL LBT failures

Including detection, recovery, and reporting a consistent UL LBT failure

ONLY NEW CRITICAL OPEN Issues that are not identified in email discussions. Contributions should NOT discuss open issues in the email discussion

#### 6.2.2.3 Configured grant operation

Including HARQ aspects, configuration aspects, multiple active configured grants, and conflicts between dynamic and configured grants (NR-U specific).

ONLY NEW CRITICAL OPEN Issues that are not identified in email discussions. Contributions should NOT discuss open issues in the email discussion

#### 6.2.2.4 Other

Includes wideband operation aspects, HARQ, SR and PHR

ONLY NEW CRITICAL OPEN Issues that are not identified in email discussions. Contributions should NOT discuss open issues in the email discussion

### 6.2.3   Control plane

#### 6.2.3.1 Mobility and RRM

Including camping and cell (re)-selection. Focus should be on idle and inactive mode mobility.  For connected mode  mobility solutions to be covered by the NR Mobility Enh WI are not to be discussed.

Note RP-191581: RRM Measurements beyond currently agreed ones have lower priority.

ONLY NEW CRITICAL OPEN Issues that are not identified in email discussions. Contributions should NOT discuss open issues in the email discussion

#### 6.2.3.2 Other

Other control plane stage-3 aspects including system information. Note RP-191581: Enhancements for System Information has lower priority

ONLY NEW CRITICAL OPEN Issues that are not identified in email discussions. Contributions should NOT discuss open issues in the email discussion

RLM/RLF will not be treated in this meeting

## 6.4 NR V2X

(5G\_V2X\_NRSL-Core; leading WG: RAN1; REL-16; started: Mar 19; target; Mar 20; WID: [RP-191723](file:///C:\Data\3GPP\TSGR\TSGR_84\docs\RP-190984.zip)). Documents in this agenda item will be handled in a break out session

Time budget: 3 TU

Tdoc Limitation: 12 tdocs

### 6.4.1 General

Including incoming LSs, rapporteur inputs, etc.

### 6.4.2 Control plane

#### 6.4.2.1 RRC

Including email discussion [108#44] and remaining Uu and PC5 RRC issues. Note any capability related issues are handled in 6.4.2.2. This agenda item will utilize a summary document to facilitate treatment of topics during the e-meeting. Summary document is provided by RRC CR rapporteur (Huawei).

#### 6.4.2.2 Others

Including email discussion [108#50], [108#103] and other remaining control plane issues, e.g. capability, idle/inactive UE procedures, etc. This agenda item may utilize a summary document to facilitate treatment of topics during the e-meeting. Summary documents are provided by CR rapporteurs (capability: OPPO, idle/inactive: ZTE).

### 6.4.3 User plane

#### 6.4.3.1 MAC

Including email discussion [108#99], [108#100] and remaining MAC issues. This agenda item will utilize a summary document to facilitate treatment of topics during the e-meeting. Summary document is provided by MAC CR rapporteur (LG).

#### 6.4.3.2 Others

Including email discussion [108#101], [108#102] and other remaining user plane issues, e.g. RLC, PDCP, SDAP, etc. This agenda item may utilize a summary document to facilitate treatment of topics during the e-meeting. Summary documents are provided by CR rapporteurs (RLC: Ericsson, PDCP: CATT, SDAP: Vivo)

### 6.4.4 Others

Including other essential issues for V2X completion, which may have both control and user plane aspects. This agenda item may utilize a summary document to facilitate treatment of topics during the e-meeting (decision to be made based on submitted tdocs).

## 6.5 Optimisations on UE radio capability signalling

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

Time budget: 0.5 TU

Tdoc Limitation: 2 tdocs

Apart from running CRs, it's possible to contribute to sub agenda items 6.5.2 and 6.5.3, if any new issues are identified. This Work Item will likely only be handled via offline email discussions kicked off at the e-meeting start.

### 6.5.1 Organisational

Including incoming LSs, rapporteur inputs, running CRs, etc

### 6.5.2 UE radio capability signalling using UE capability identity

Other aspects, if any, can also be covered here

### 6.5.3 Segmentation of UE radio capabilities

## 6.6 Void

## 6.7 NR Industrial Internet of Things (IoT)

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

Time budget: 3 TU

Tdoc Limitation: 12 tdocs

### 6.7.1 General

Rapporteur input. UE feature List UE cap etc

Including outcome of the email discussion [108#47][IIOT] UE feature list (Nokia)

Including outcome of the email discussion [108#32][IIOT] Running CR 38.331 (Ericsson)

Including outcome of the email discussion [108#52][IIOT] Running CR 38.323 (LG)

Summary UE feature list, UE capabilities (Nokia) if needed.

### 6.7.2 TSC

#### 6.7.2.1 Accurate reference timing

Accurate reference timing delivery from gNB to UE using broadcast and unicast RRC signalling for synchronization requirements defined in TS 22.104

Rapporteur guidance: Remaining issues:

* Propagation delay compensation
* How to determine whether a UE requires to be provisioned with reference time information

Summary Accurate reference timing (Nokia)

#### 6.7.2.2 Scheduling Enhancements

Enhancements to satisfy QoS for wireless Ethernet when using TSC traffic patterns and support for TSC message periodicities with non-integer multiple of NR supported CG/SPS periodicities.

Rapporteur guidance: Remaining issues:

* Multiple SPS/CG enhancements (CG confirmation MAC CE, SFN misalignment for CG type 1 etc.)
* LCP restrictions (PHY priority-based restriction, allowed CG list)
* Other issues as identified in the e-mail discussions

Summary Scheduling Enhancements (Ericsson)

#### 6.7.2.3 Ethernet Header Compression

Specify Ethernet header compression based on structure-aware algorithm.

Including outcome of the email discussion [108#53][IIOT] EHC remaining issues (Huawei)

Rapporteur guidance: Remaining issues:

* Padding removal support
* EHC compressed and ucompressed packet formats
* EHC and ROHC joint operation
* Other issues unresolved during e-mail discussions

Summary Ethernet Header Compression (Mediatek)

### 6.7.3 Intra-UE prioritization and multiplexing

Resource conflicts between dynamic grant (DG) and configured grant (CG) PUSCH and conflicts involving multiple CGs. UL data/control and control/control resource collision according to WID.

#### 6.7.3.1 Handling of deprioritized transmissions.

Rapporteur guidance: Remaining issues:

* Usage of the same HARQ process with different CG
* Whether processing timeline needs to be considered
* Other issues as identified in the e-mail discussions

Summary Deprioritized transmissions (CATT)

#### 6.7.3.2 Data Data prioritization and SR Data Prioritization

Rapporteur guidance: Remaining issues:

* Consideration of MAC CE when doing prioritization
* Other issues as identified in the e-mail discussions

Summary Data Data Prioritization and SR Data Prioritization (Samsung)

#### 6.7.3.4 Other

### 6.7.4 PDCP duplication enhancements

Network Controlled duplication. PDCP duplication with up to 4 RLC entities configured by RRC. Mechanisms or enhancements relating to dynamic control of how a set or subset of configured RLC entities or legs are used for PDCP duplication, duplication activation/deactivation.

Rapporteur guidance: Remaining issues:

* Rel-15 and Rel-16 duplication MAC CEs utilization
* Duplicated PDU discarding upon RLC entity deactivation
* Other issues as identified in the e-mail discussions

Summary PDCP duplication Enhancements (LG)

## 6.8 NR Positioning Support

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

Time budget: 1 TU

Tdoc Limitation: 6 tdocs

### 6.8.1 Organisational

Including incoming LSs, rapporteur inputs, etc. Note running CRs will be treated under the corresponding agenda items.

### 6.8.2 Architecture and protocol aspects

#### 6.8.2.1 Stage 2

Including impact to 36.305 and 38.305. This agenda item may utilize a summary document to facilitate treatment of topics during the e-meeting (decision to be made based on submitted tdocs).

Including outcome of the email discussion [108#84][NR/Pos] Running stage 2 CR on positioning (Intel)

#### 6.8.2.2 RRC

Including impact to 36.331 and 38.331. This agenda item will utilize a summary document to facilitate treatment of topics during the e-meeting.

Including outcome of the email discussion [108#41][NR/Pos] Running CR to 38.331 on positioning (Ericsson)

Summary document to be provided by the CR rapporteur (Ericsson)

#### 6.8.2.3 LPP

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

Including outcome of the email discussion [108#85][NR/Pos] Running CR to 36.355 (Intel)

Including outcome of the email discussion [108#86][NR/Pos] Single positioning method approach in LPP (Ericsson)

Including outcome of the email discussion [108#87][NR/Pos] Additional path reporting (Ericsson)

Summary document to be provided by the CR rapporteur (Intel)

#### 6.8.2.4 Broadcast assistance data

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

Including outcome of the email discussion [108#88][NR/Pos] Remaining issues on broadcast assistance data (Ericsson)

Summary document to be provided by the email discussion rapporteur (Ericsson)

#### 6.8.2.5 UE-based positioning

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

Including outcome of the email discussion [108#89][NR/Pos] UE-based downlink positioning assistance data (Qualcomm)

Summary document to be provided by the email discussion rapporteur (Qualcomm)

### 6.8.3 Other

## 6.9 NR mobility enhancements

(NR\_Mob\_enh-Core; leading WG: RAN2; REL-16; started: Jun 18; target; Mar 20; WID: [RP-192277](file:///C:\Data\3GPP\archive\TSGR\TSGR_83\Docs\RP-190489.zip)). Documents in this agenda item will be handled in a break out session

No documents should be submitted to 6.9.

Treated together with 7.3,

Joint 6.9 and 7.3 Time budget: 3 TU

Joint 6.9 and 7.3 Tdoc Limitation: 12 tdocs

This agenda item will utilize a summary document procedure for some sub-agenda items to facilitate treatment of topics during the e-meeting, which may lead to postponement of some topics to next meeting.

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

### 6.9.1 Organisational

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

*Including outcome of email discussion [108#62][NR Mob] Running Stage-2 CR (Intel)*

*Including CHO part of the outcome of email discussion [108#66][LTE NR Mob] Open issues for LTE and NR mobility (Intel)*

*Including NR part of the outcome of email discussion [108#45][LTE NR Mob] UE feature list for LTE and NR mobility (Intel)*

*A web conference may be used to treat some topics in this agenda item.*

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

*Contributions on DAPS handovers for LTE and NR are treated jointly in under 7.3.2. Do not use this AI for any item that can be discussed jointly - This AI only addresses NR-specific topics.*

*Including remaining details (if any) on SDAP handling during DAPS handover.*

### 6.9.3 Conditional handover and fast handover failure recovery

Contributions on conditional handover for LTE and NR are treated jointly under 6.9.3 except where otherwise noted.

No documents should be submitted to 6.9.3. Please submit to 6.9.3.x

#### 6.9.3.1 Conditional handover – configuration and execution details

*This AI jointly addresses NR and LTE.*

*Including outcome of email discussion [108#34][NR Mob] Running RRC CR for CHO and DAPS (Intel)*

*Including RRC and ASN.1 details not handled in email discussions.*

*Including remaining open issues of CHO (as per email discussion [108#66]).*

This agenda item will utilize a summary document to facilitate treatment of topics during the e-meeting. This may lead to postponement of some items to next meeting. A web conference may be used for some topics in this agenda item.

#### 6.9.3.2 Conditional handover – failure handling

*This AI jointly addresses NR and LTE.*

*Including open issues and details on CHO failure handling not handled in email discussions*

This agenda item will utilize a summary document to facilitate treatment of topics during the e-meeting. This may lead to postponement of some items to next meeting. A web conference may be used for some topics in this agenda item.

#### 6.9.3.3 Conditional handover – other aspects

*This AI jointly addresses NR and LTE.*

*Including remaining open issues for measurements for CHO.*

*Including discussion on UE capabilities for CHO.*

This agenda item will utilize a summary document to facilitate treatment of topics during the e-meeting. This may lead to postponement of some items to next meeting. A web conference may be used for some topics in this agenda item.

#### 6.9.3.4 Fast handover failure recovery

This AI only addresses NR.

*Including outcome of email discussion [108#16][NR Mob] T312 for PCell and PSCell (Samsung) and any remaining Stage-3 details of T312 support.*

This agenda item will utilize a summary document to facilitate treatment of topics during the e-meeting. This may lead to postponement of some items to next meeting. No web conference is planned for this agenda item.

#### 6.9.3.5 Conditional handover - beam specific aspects

This AI only addresses NR.

Including *discussion on beam-related aspects for CHO. No new proposals should be provided, and any contributions should provide TPs illustrating the required Stage-3 specification changes.*

#### 6.9.3.6 Summary documents for conditional handover and fast handover failure recovery

Summary documents for Ais 6.9.3.1, 6.9.3.2, 6.9.3.3, 6.9.3.4 and 6.9.3.5 should be submitted under this AI.

Summary document of 6.9.3.1 to be provided by NN.

Summary document of 6.9.3.2 to be provided by NN.

Summary document of 6.9.3.3 to be provided by NN.

Summary document of 6.9.3.4 to be provided by NN.

Summary document of 6.9.3.5 to be provided by NN.

### 6.9.4 Conditional PSCell addition/change

No documents should be submitted to 6.9.4. Please submit to 6.9.4.x

#### 6.9.4.1 Conditional PSCell change for intra-SN

*Including outcome of email discussion [108#67][NR Mob] Resolving open issues in CPAC and creating TP (CATT). Including remaining details of SN-initiated procedures (other cases are not considered in Rel-16).*

This agenda item will utilize a summary document to facilitate treatment of topics during the e-meeting. This may lead to postponement of some items to next meeting. No web conference is planned for this agenda item.

#### 6.9.4.2 Summary documents for conditional handover and fast handover failure recovery

The summary document for AI 6.9.4.1 should be submitted under this AI.

Summary document of 6.9.4.2 to be provided by NN.

## 6.10 DC and CA enhancements

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

Time budget: 2 TU

Tdoc Limitation: 8 tdocs

### 6.10.1 Organisational

Including incoming LSs, running CRs, rapporteur inputs, etc

Including outcome of the email discussion [108#48][DCCA] DCCA R2 feature list (Huawei)

Including outcome of the email discussion [108#33][DCCA] RRC running CRs 36.331, 38.331 (Ericsson)

Summary DCCA Org (Ericsson) if needed

### 6.10.2 NR-NR Dual Connectivity

Seems finished, no open issue

Summary DCCA NRNRDC (Ericsson) if needed

### 6.10.3 Early measurement reporting

Early measurement reporting for MR-DC, NR-DC, and CA in IDLE, INACTIVE.

Including outcome of the email discussion [108#54][DCCA] Early measurements (Ericsson)

Summary DCCA Early Measurement Reporting (Ericsson)

### 6.10.4 Efficient and low latency configuration signalling

Minimizing signalling overhead and latency needed for initial cell setup, additional cell setup and additional cell activation for data transmission. Contributions related to early measurement reporting should not be submitted in this AI.

Please submit to 6.10.4.x

#### 6.10.4.1 Direct SCell activation

Further details related to direct SCell activation by RRC upon SCell addition or after a handover. Support of MCG SCell and SCG Configuration with RRC Resume (AI 6.10.4.3) should be concluded before discussing whether direct SCell activation by RRC is applicable to RRC Resume.

#### 6.10.4.2 Fast SCell activation

Solutions for fast SCell activation including 'dormancy' like behaviour, provision of temporary RS resources at SCell activation, etc. This topic will be discussed again by RAN2 after receiving input from RAN1/4 on the feasibility and benefit of the potential solutions in response to LS [R2-1908483](file:///C:\Data\3GPP\Extracts\R2-1908483%20-%20LS%20on%20NR%20fast%20SCell%20activation.docx) sent from RAN2#106.

Including outcome of the email discussion [108#56][DCCA] Scell Dormancy Open Issues (Oppo)

Summary Fast SCell activation (OPPO)

#### 6.10.4.3 MCG SCell and SCG Configuration with RRC Resume

Support of CA/DC configuration with RRC resume.

Including outcome of the email discussion [108#55][DCCA] MCG SCell and SCG Configuration with RRC Resume (ZTE)

Summary MCG SCell and SCG Configuration with RRC Resume (ZTE)

#### 6.10.4.4 Other

Other enhancements not addressed in the AIs above

### 6.10.5 Fast MCG link Recovery

Further details of fast recovery of MCG link by utilizing the SCG link for recovery during MCG failure while operating under MR-DC.

Summary Fast MCG link Recovery (Ericsson)

### 6.10.6 Cross-Carrier scheduling with different numerologies

RAN2 aspects related to cross-carrier scheduling, to be discussed after RAN1 has made some progress.

### 6.10.7 Other

Including any RAN2 aspects related to the objectives 6, 7 and 8 (for which the WID did not identify RAN2 impact)

Including outcome of the email discussion [108#57][DCCA] Async CA (QC)

## 6.11 UE Power Saving in NR

(NR\_UE\_pow\_sav-Core; leading WG: RAN1; REL-16; started: Mar 19; target; Mar 20; WID: [RP-191607](file:///C:\Data\3GPP\TSGR\TSGR_84\docs\RP-191607.zip), 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: 4 tdocs

### 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.

38.306 can be submitted for informational purpose by rapporteur (Intel), but it will not be treated this meeting

Including outcome of the email discussion [108#39][Power Saving] Running 38.331 (Mediatek)

Including outcome of the email discussion [108#78][Power Saving] Running 38.321 (Huawei)

Including outcome of the email discussion [108#79][Power Saving] Running 38.304 (Vivo)

Including outcome of the email discussion [108#80][Power Saving] Running 38.300 (CATT)

Including outcome of the email discussion [108#81][Power Saving] Running 37.340 (Oppo)

### 6.11.2 PDCCH-based power saving signals/channel Additional stage-3 RAN2 aspects

NOTE: 3. As per plenary guidance (RP-192289), RAN2 is not expected to discuss any aspects related to whether additional UE behavior is needed when UE is also configured for receiving PDCCH based power saving signal/channel outside active time. No contributions on this topic should be submitted under power savings.

ONLY NEW CRITICAL OPEN Issues that are not identified in email discussions. Contributions should not discuss open issues in the email discussion.

### 6.11.3 UE assistance

Stage 3 details of reportings mechanisms for a UE to 1) indicate its preference of transitioning out of RRC\_CONNECTED state 2) c-DRX and 3) SCell

ONLY NEW CRITICAL OPEN Issues that are not identified in email discussions. Contributions should not discuss open issues in the email discussion

### 6.11.6 RRM measurement relaxation

Contributions should focus on additional enhancements to LTE relaxed monitoring criteria that are specific to NR and whether neighbour cell RSRP should also be considered in cell-edge criterial.

Discuss type of RRM measurement relaxation by allowing measurements with longer intervals, and/or by reducing the number of cells/carriers to be measured. NOTE: this topic should be considered together with RAN4.

ONLY NEW CRITICAL OPEN Issues that are not identified in email discussions. Contributions should not discuss open issues in the email discussion

## SON/MDT support for NR

(NR\_SON\_MDT-Core; leading WG: RAN3; REL-16; started: Jun 19; target; Mar 20; WID: [RP-191](file:///C:\Data\3GPP\TSGR\TSGR_84\docs\RP-191594.zip)776). Documents in this agenda item will be handled in a break out session

Time budget: 1 TU

Tdoc Limitation: 10 tdocs

### 6.12.1 General

Including LSs, work plan, rapporteur inputs, running TS

Including outcome of the email discussion [108#91][NR/L2M] running 38.314 CR (CMCC)

Including outcome of the email discussion [108#42][NR/MDT] running 38.331 CR to support SON/MDT (Huawei and Ericsson )

Including outcome of the email discussion [108#43][NR/MDT] Running 36.331CR for MDT (Huawei)

Including outcome of the email discussion [108#92][NR/MDT] Running 37.320 CR for MDT (CMCC, Nokia)

Including outcome of the email discussion [108#93][NR/MDT] running 38.321 CR (Ericsson)

Including outcome of the email discussion [108#49][NR MDT] running 38.306 CR (vivo)

### 6.12.2 MDT

The procedure, signaling and corresponding measurement quantities for MDT

ONLY CRITICAL OPEN Issues that makes MDT cannot work will be discussed. No new feature/function will be discussed this meeting.

### 6.12.3 L2 measurements

Definition of L2 measurements in TS 38.314.

No new measureemnts will be introduced to TS38.314 this meeting. Discussion only focus on current running 38.314.

### 6.12.4 SON

UE reporting necessary to enhance the network configuration for MRO, MLB and RACH optimization

ONLY CRITICAL OPEN Issues that makes SON cannot work will be discussed. No new feature/function will be discussed this meeting.

### 6.12.5 Others

## 6.13 2-step RACH for NR

(NR\_2step\_RACH-Core; leading WG: RAN1; REL-16; started: Dec 18; target; Mar 20; WID: [RP-192330](file:///C:\Data\3GPP\Extracts\RP-190711%20Revised%20work%20item%20proposal%202%20step%20RACH%20for%20NR.docx)). Documents in this agenda item will be handled in a break out session

Time budget: 1 TU

Tdoc Limitation: 6 tdocs

### 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.

Including outcome of the email discussion [108#40][2-step RA] Running 38.331 (Ericsson)

Including outcome of the email discussion [108#82][2-step RA] Running 38.321 (ZTE)

Including outcome of the email discussion [108#83][2-step RA] Running 38.300 (Nokia)

### 6.13.2 Other user plane stage-3 aspects

RA-RNTI design and open aspects of contention resolution.

### 6.13.3 RRC stage-3 related aspects

### 6.13.4 Other

CFRA for 2-step RACH for HO if time permits as per plenary guidance.

ZTE will summarize the proposals and open issues and provide possible way forward for online discussions. Companies are encouraged to work together towards a converged solution.

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

Time budget: 0.5 TU

Tdoc Limitation: 1 tdoc

Only running CRs are expected to be submitted for this Work Item. For important unexpected issues it's still possible to contribute to sub agenda item 6.14.2. This Work Item will likely only be handled via offline email discussions, kicked off at the e-meeting start.

### 6.14.1 Organisational

Including incoming LSs, running CRs, rapporteur inputs, etc

### 6.14.2 Other

## 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; Dec 19; WID: [RP-191997](file:///C:\Data\3GPP\archive\RAN\RAN%2385\Tdocs\RP-191997.zip)) Documents in this agenda item will be handled in a break out session.

Time budget: 0 TU

Tdoc Limitation: 1 tdoc

Apart from running CRs, it's possible to contribute to sub agenda item 6.15.2 for the remaining open issues. This Work Item will likely only be handled via offline email discussions kicked off at the e-meeting start.

### 6.15.1 Organisational

Including incoming LSs, running CRs, rapporteur inputs, etc

### 6.15.2 Other

## 6.16 Enhancements on MIMO for NR

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

Time budget: 1 TU

Tdoc Limitation: 3 tdocs

It's possible to contribute to all sub agenda items, to address the remaining open issues. Summary documents may then be utilized to summarize documents submitted to a given sub-AI and to make tentative proposals. For this Work Item, the discussion (on summary/company tdocs) will start during a web conference and will then continue via offline email discussions.

### 6.16.1 Organisational

Including incoming LSs , rapporteur inputs, running stage 2 CRs , etc

### RRC aspects

Including output of email discussion [108#36][NR eMIMO] Running RRC CR (Ericsson).

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

### DL MAC CE design

DL MAC CE design for TCI states activation/deactivation (for both single-PDCCH and Multi-PDCCH mTRP operation) and for all other functionalities defined by RAN1.

Including output of email discussion [108#68][NR eMIMO] Design of DL MAC CEs (Oppo).

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

### 6.16.4 General beam management enhancements

Including details of BFR procedure for Scell. Other aspects, if any, can also be covered here

Including output of email discussion [108#69][NR eMIMO] Running MAC CR (Samsung)

Including output of email discussion [108#70][NR eMIMO] BFR MAC CE (Samsung)

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; Mar 20; WID: [RP-191563](file:///C:\Data\3GPP\archive\RAN\RAN%2384\Tdocs\RP-191563.zip)). Documents in this agenda item will be handled in a break out session.

Time budget: 0.5 TU

Tdoc Limitation: 3 tdocs

It's possible to contribute to all sub agenda items, to address the remaining open issues. Summary documents may then be utilized to summarize documents submitted to a given sub-AI and to make tentative proposals. For this Work Item, the discussion (on summary/company tdocs) will start during a web conference and will then continue via offline email discussions.

### 6.18.1 Organisational

Including incoming LSs , rapporteur inputs, running stage 2 CRs , etc

### 6.18.2 Cell selection and reselection

Including output of email discussion [108#37][PRN] Running RRC CR (Nokia).

Including output of email discussion [108#71][PRN] Running 38.304 CR (Qualcomm).

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

### 6.18.3 Connected mode aspects

Connected mode specific aspects, also including CAG ID transmission related issues (e.g. inclusion of CAG ID during Resume, etc).

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

### 6.18.4 Other

Including HRNN (Human Readable Name) aspects and common idle and connected mode aspects (e.g. access control, etc.)

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

## 6.20 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: No Limitation for Operators, 6 tdocs for others. NOTE for TEI, the tdoc limitation applies to new proposals, not to open proposals since previous meeting(s)

R2 109e: For TEI16, no treatment of new proposals, nor open proposals not covered by email discussions. Email discussions [108#xx] will be treated. In-principle agreed CRs will be treated. Could consider to start email discussions to next meeting, e.g. based on new incoming LSes.

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

Including outcome of the email discussion [108#58][TEI16] NeedForGap Signaling (MTK)

Including outcome of the email discussion [108#59][TEI16] DL segmentation CRs (Ericsson)

Including outcome of the email discussion [108#60][TEI16] DRX coord (Huawei)

TEI Positioning

Including outcome of the email discussion [108#90][NR/TEI16] Introduction of B1C BDS signal (CATT)

#### 6.20.1.0 In-principle-agreed CRs

CRs in-principle agreed at previous meeting(s) need to be submitted at this meeting. They need to be updated to be based on the lastest version of the specification.

#### 6.20.1.1 Open / ongoing proposals

#### 6.20.1.3 New proposals

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

#### 6.20.2.0 In-principle-agreed CRs

CRs in-principle agreed at previous meeting(s) need to be submitted at this meeting. They need to be updated to be based on the lastest version of the specification.

#### 6.20.2.1 Open / ongoing proposals

#### 6.20.2.3 New proposals

### 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

CRs in-principle agreed at previous meeting(s) need to be submitted at this meeting. They need to be updated to be based on the lastest version of the specification.

#### 6.20.3.1 Open / ongoing proposals

## 6.21 On demand SI in connected

On demand SI reception in RRC\_CONNECTED may be relevant to several Rel-16 WIs (e.g. V2X, positioning, IIoT, etc). 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

Including outcome of the email discussion [108#61][R16] on-demand SI procedure in RRC\_CONNECTED (Ericsson)

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

(NR\_L1enh\_URLLC-Core; leading WG: RAN1; REL-16; target; Mar 20; WID: [RP-1915](file:///C:\Data\3GPP\TSGR\TSGR_84\docs\RP-191563.zip)84). Treated together with IIOT, AI 6.7. UL intra-UE prioritization and enhanced UL CG transmission should be discussed and addressed under RAN2 IIOT WI (do not submit under this AI), while the other objectives should be discussed under RAN2 eURLLC WI. This AI.

Time budget: 1 TU, will be treated together with IIOT.

Tdoc Limitation: 3 tdocs (for AI 6.22, or for 6.7 in addition to the tdoc limitation listed for 6.7)

### 6.22.1 Organizational

Running CRs etc

Including outcome of the email discussion [108#112][URLLC] RRC running CR (Huawei)

### 6.22.2 Control Plane

### 6.22.3 User Plane

# 7 Rel-16 LTE Work Items

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

## 7.1 Additional MTC enhancements for LTE

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

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

### 7.1.2 Mobile-terminated (MT) early data transmission (EDT)

MT Early Data transmission 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). This may lead to postponing some items to the next meeting. A web conference may be used for handling some of the discussions in this AI.

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

UE-group wake-up signal (WUS) for MTC is treated jointly with NB-IoT under AI 7.2.3. Do not use this AI for any item that can be discussed jointly.

### 7.1.4 Transmission in preconfigured resources

Transmission in preconfigured resources for MTC is treated jointly with NB-IoT under AI 7.2.4. Do not use this AI for any item that can be discussed jointly.

### 7.1.5 Scheduling multiple DL/UL transport blocks

Scheduling multiple DL/UL transport blocks with or without DCI for SC-PTM and unicast

Scheduling multiple DL/UL transport blocks 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). This may lead to postponing some items to the next meeting. A web conference may be used for handling some of the discussions in this AI.

### 7.1.6 Quality report in Msg3

Including outcome of the email discussion [108#72][eMTC] To finalize the 2 bit Quality report (Qualcomm)

A web conference or an offline discussion may be used for handling the outcome of the email discussion in this AI.

### 7.1.7 MPDCCH performance improvement using CRS

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). This may lead to postponing some items to the next meeting. A web conference may be used for handling some of the discussions in this AI.

### 7.1.8 Improvements for non-BL UEs

CE mode A and B improvements for non-BL UEs among “enhancements to idle mode mobility”, “UE demodulation performance requirements for 2 RX antennas and full duplex FDD”, “Dual layer DL reception”, “Feedback based on CSI-RS”, “ETWS/CMAS in connected mode”

No documents should be submitted to AI 7.1.8. Please submit the documents to AI 7.1.8.x

#### 7.1.8.1 Idle Mode Mobility

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

#### 7.1.8.2 ETWS/CMAS in connected mode

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

### 7.1.9 Stand-alone deployment

Enable the use of LTE control channel region for DL transmission (MPDCCH/PDSCH) to BL/CE UEs

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). This may lead to postponing some items to the next meeting. A web conference may be used for handling some of the discussions in this AI.

### 7.1.10 Mobility Enhancements

Improving the DL RSRP and, RSRQ measurement accuracy, through use of RSS, relaxation of RRM measurements for serving cell for UEs using WUS for at least low mobility UEs

Including outcome of the email discussion [108#73][eMTC] TPs for RSS (Ericsson)

A web conference or an offline discussion may be used for handling the outcome of the email discussion in this AI.

### 7.1.11 Coexistence with NR

Study NR and LTE specifications to identify possible issues related to coexistence of MTC with NR

This AI may not be treated during the e-meeting (decision to be made based on the submitted tdocs).

### 7.1.12 Connection to 5GC (eDRX, EDT, UP optimisation, RRC\_INACTIVE and other MTC specific topics)

Support of eDRX in CM-IDLE, UP optimisation, and EDT for MTC and NB-IoT are treated jointly under this AI.

No documents should be submitted to AI 7.1.12. Please submit the documents to AI 7.1.12.x

#### 7.1.12.1 Paging in RRC\_INACTIVE

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). This may lead to postponing some items to the next meeting. A web conference of an offline discussion may be used for handling some of the discussions in this AI.

#### 7.1.12.2 DRB resume in UP optimization

Including outcome of the email discussion [108#19][eMTC NB-IoT] When to resume DRBs in UP optimization for 5GC (Ericsson)

A web conference or an offline discussion may be used for handling the outcome of the email discussion in this AI.

#### 7.1.12.3 Other

This AI may not be treated during the e-meeting (decision to be made based on the submitted tdocs).

### 7.1.13 Other

This AI may not be treated during the e-meeting (decision to be made based on the submitted tdocs).

## 7.2 Additional enhancements for NB-IoT

(NB\_IOTenh3-Core; leading WG: RAN1; REL-16; started: Jun 18; target; Mar 20; WID: RP-192313)

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

### 7.2.2 Mobile-terminated (MT) early data transmission (EDT)

Mobile-terminated Early Data transmission for NB-IoT is treated jointly with MTC under AI 7.1.2. Do not use this AI for any item that can be discussed jointly.

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

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

Including outcome of the email discussion [108#94][NB-IoT/eMTC R16] Finalise the WUS signalling (Qualcomm)

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

### 7.2.4 Transmission in preconfigured resources

Including support for transmission in preconfigured resources in idle and/or connected mode based on SC-FDMA waveform for UEs with a valid timing advance.

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

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

### 7.2.5 Scheduling multiple DL/UL transport blocks

Including scheduling multiple DL/UL transport blocks with or without DCI for SC-PTM and unicast

Scheduling multiple DL/UL transport blocks for NB-IoT is treated jointly with MTC under AI 7.1.5. Do not use this AI for any item that can be discussed jointly.

### 7.2.6 Network management tool enhancement

Including SON support for ANR, Random access performance and RLF report

Including outcome of the email discussion [108#95][NB-IoT] Finalise SON ANR and RLF (Huawei)

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

### 7.2.7 Improved multi-carrier operation

Including support of Msg3 quality reporting for non-anchor access.

Including signalling to indicate on a non-anchor carrier for paging a set of subframes which will contain NRS even when no paging NPDCCH is transmitted.

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

### 7.2.8 Inter-RAT cell selection

Including power efficient NB-IoT mechanism which would assist idle mode inter-RAT cell selection for NB-IoT to and from LTE, LTE-MTC and GERAN

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

### 7.2.9 Coexistence with NR

Study NR and LTE specifications to identify possible issues related to coexistence of NB-IoT with NR

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

### 7.2.10 Connection to 5GC (Other common aspects, NB-IoT specific aspects)

Common aspects for MTC and NB-IoT not listed in 7.1.12 are treated jointly under this AI.

Including outcome of the email discussion [108#96][NB-IoT/eMTC R16] Finalise details on RAI (Ericsson)

Including outcome of the email discussion [108#97][NB-IoT / eMTC] Consider how to minimize ping-pong between CN types in RRC\_IDLE/RRC\_INACTIVE. (Qualcomm)

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

### 7.2.11 UE specific DRX

Specify support of UE specific DRX and consider expanding the current DRX range

Including outcome of the email discussion [108#98][NB-IoT] UE specific DRX (Huawei)

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

### 7.2.12 Other

Others

## 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](file:///C:\Data\3GPP\TSGR\TSGR_84\docs\RP-190921.zip))

Tdoc Limitation: see 6.9 above.

No documents should be submitted to 6.9.

This agenda item will utilize a summary document to facilitate treatment of topics during the e-meeting. This may lead to postponement of some items to next meeting. A web conference may be used for this agenda.

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

### 7.3.1 Organizational

Including incoming LSs and rapporteur inputs (if any)

*Including outcome of email discussion [108#63][LTE Mob] Running Stage-2 CR (China Telecom)*

*Including DAPS part of the outcome of email discussion [108#66][LTE NR Mob] Open issues for LTE and NR mobility (Intel)*

Including LTE part of the outcome of email discussion [108#45][LTE NR Mob] UE feature list for LTE and NR mobility (Intel).

A web conference is planned for this agenda item.

### 7.3.2 Reduction in user data interruption for dual active protocol stack (DAPS) handover

DAPS handovers for LTE and NR are treated jointly in under this AI.

No documents should be submitted to 7.3.2. Please submit to 7.3.2.x.

#### 7.3.2.1 User plane aspects of DAPS HO

No documents should be submitted to 7.3.2.1. Please submit to 7.3.2.1.x.

##### 7.3.2.1.1 PDCP/RLC aspects of DAPS HO

DAPS impacts to PDCP/RLC for LTE and NR are treated jointly under this AI. SDAP-specific aspects should be submitted to 6.9.2.

*Including the outcome of email discussion [108#64][LTE NR Mob] Running CRs for LTE and NR PDCP on mobility (Huawei)*

*Including details on when/whether PDCP status reporting is triggered during DAPS procedure.*

*Note: Handling of EHC with DAPS to be done when the IioT WID has progressed more.*

This agenda item will utilize a summary document to facilitate treatment of topics during the e-meeting. This may lead to postponement of some items to next meeting. A web conference may be used for some topics in this agenda item.

##### 7.3.2.1.2 MAC and UL transmission aspects of DAPS HO

*Including the outcome of email discussion [108#65][LTE NR Mob] Running MAC CRs for LTE and NR (vivo)*

*Note: Handling the FFS on Msg.B details to be done when the 2-step RACH has progressed more.*

This agenda item will utilize a summary document to facilitate treatment of topics during the e-meeting. This may lead to postponement of some items to next meeting. A web conference may be used for some topics in this agenda item.

##### 7.3.2.1.3 Summary documents for UP aspects of DAPS HO

Summary documents for Ais 7.3.2.1.1 and 7.3.2.1.2 are treated under this AI.

Summary document of 7.3.2.1.1 to be provided by NN.

Summary document of 7.3.2.1.2 to be provided by NN.

#### 7.3.2.2 Control plane aspects of DAPS HO

*No documents should be submitted to 7.3.2.2. Please submit to 7.3.2.2.x.*

##### 7.3.2.2.1 RRC procedures during DAPS HO

*Including outcome of email discussion [108#35][LTE Mob] Running RRC CR (Ericsson)*

*Including any remaining RRC configuration and procedural details, e.g. fallback to source cell when target cell fails, handling of source/target RRC configuration during DAPS.*

This agenda item will utilize a summary document to facilitate treatment of topics during the e-meeting. This may lead to postponement of some items to next meeting. A web conference may be used for some topics in this agenda item.

##### 7.3.2.2.2 UE capabilities for DAPS HO

*Including UE capability coordination and remaining details of UE capability definitions .*

This agenda item will utilize a summary document to facilitate treatment of topics during the e-meeting. This may lead to postponement of some items to next meeting. A web conference may be used for some topics in this agenda item.

##### 7.3.2.2.3 Summary documents for CP aspects of DAPS HO

Summary documents for AIs 7.3.2.2.1 and 7.3.2.2.2 should be submitted under this AI.

Summary document of 7.3.2.2.1 to be provided by NN.

Summary document of 7.3.2.2.2 to be provided by NN.

#### 7.3.2.3 Other aspects of DAPS HO

*Including any other open aspects of DAPS HO not covered by the other agenda items (for both LTE and NR).*

This agenda item will utilize a summary document to facilitate treatment of topics during the e-meeting. This may lead to postponement of some items to next meeting. No web conference is planned for this agenda item.

Summary document of 7.3.2.3 to be provided by NN.

### 7.3.3 Conditional handover

*Contributions on conditional handover for LTE and NR are treated jointly in under 6.9.3. Do not use this AI for any item that can be discussed jointly.*

## 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)

Time budget: 0 TU. Final CR agreements.

Only final CR update is expected for this AI and the CR agreement will be treated only over email. No web conference is planned for 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.

This agenda item will utilize a summary document to facilitate treatment of topics during the e-meeting. This may lead to postponement of some items to next meeting. A web conference may be used for some topics in this agenda item.

Summary document of 7.5 to be provided by NN.

## 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.

Time budget: 1 TU

This agenda item will utilize a summary document to facilitate treatment of topics during the e-meeting. This may lead to postponement of some items to next meeting. A web conference may be used for some topics in this agenda item.

Summary document of 7.6 to be provided by NN.

## 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 Final agreement of CRs is expected

This agenda item will focus on agreeing to the final CRs for the WID and will only be treated over email. No web conference is planned for this agenda item.

## 7.8 DL MIMO efficiency enhancements for LTE

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

Time budget: 0.5 TU

This agenda item will focus on providing the baseline CRs for the WID and will only be treated over email. No web conference is planned for 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)

Time budget: 0.5 TU.

This agenda item will focus on providing the baseline CRs for the WID and will only be treated over email. No web conference is planned for 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.

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

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

### 8.8.3 Session on eMTC

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

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

### 8.8.6 Session on SON/MDT

### 8.8.7 Session on NB-IoT

### 8.8.8 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))