3GPP TSG-RAN WG2 NR Ad hoc 0118 R2-18xxxxx

Vancouver, Canada, 22nd January – 26th January 2018

Source: RAN2 Chairman (Intel)

Title: Proposed Agenda

# 1 Opening of the meeting (9 AM)

## 1.1 Call for IPR

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

The PCG has laid down the following network usage conditions

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| 1. **Users shall not use the network to engage in illegal activities. This includes activities such as copyright violation, hacking, espionage or any other activity that may be prohibited by local laws.**2. **Users shall not engage in non-work related activities that consume excessive bandwidth** or cause significant degradation of the performance of the network.Since the network is a shared resource, users should exercise some basic etiquette when using the 3GPP network at a meeting. It is understood that high bandwidth applications such as downloading large files or video streaming might be required for business purposes, but delegates should be strongly discouraged in performing these activities for personal use. Downloading a movie or doing something in an interactive environment for personal use essentially wastes bandwidth that others need to make the meeting effective. The meeting chairman should remind end users that the network is a shared resource; the more one user grabs, the less there is for another. Email and its attachments already take up significant bandwidth (certain email programs are not very bandwidth efficient). In case of need the chair can ask the delegates to restrict IT usage to things that are essential for the meeting itself.**1. DON’T place your WiFi device in ad-hoc mode** **2. DON’T set up a personal hotspot in the meeting room** **3. DO try 802.11a if your WiFi device supports it** **4. DON’T manually allocate an IP address** **5. DON’T be a bandwidth hog by streaming video, playing online games, or downloading huge files** **6. DON’T use packet probing software which clogs the local network (e.g., packet sniffers or port scanners)** |

## 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.

# 2 General

THANK YOU to companies that request TDoc numbers and submit contributions early before deadline (really appreciated). Will start to refrain from treating late documents.

## 2.1 Approval of the agenda

A draft schedule for the week is provided as a separate document, distributed via the RAN2 email reflector and made available during the meeting week in the RAN2\Inbox\Chairmans\_Notes folder.

## 2.2 Approval of the report of the previous meeting

## 2.3 Reporting from other meetings

## 2.4 Others

Rapporteur changes

Spec former rapporteur proposed new rapporteur

Isolated impact analysis

Note that an isolated impact analysis is required for Rel-8 to Rel-14 CRs from Q3 2017 onwards.

Only corrections where there is a proven problem are allowed for frozen releases (Rel-8 to Rel-14).

RAN2 WG compendium

Latest version can always be found at ftp://ftp.3gpp.org/tsg\_ran/WG2\_RL2/Org/RAN2\_Compendium/

Drafting rules

Note that specification drafting rules in TR 21.801 must be followed when drafting a CR and draft TS/TR.

Latest version can always be found at http://www.3gpp.org/ftp/specs/archive/21\_series/21.801/

Time Budget

The time budget endorsed at RAN-77 is available in RP-172116

Offline discussion during RAN2 meeting

Chairs will allocate a number of offline discussions during the meeting. Create a folder containing this number within inbox/drafts and use this to share any documents relating to the offline discussion. Also use this number in the title of any reflector emails relating to this offline discussion. Do not share documents over the reflector during the meeting.

# 3-9 Void

# 10 WI: New Radio (NR) Access Technology

(NR\_newRAT-Core; leading WG: RAN1; REL-15; started: Mar. 17; target: Jun. 18: WID: RP-172115)

General guidance on CRs related to NR specifications: Editorial corrections, wording improvements, etc should first be communicated to the specification rapporteur for possible inclusion in a rapporteur's CR update, and only submitted as a separate CR if you conclude with the rapporteur that separate contribution is needed.

## 10.1 Organisational

Incoming LSs, work plan, status from other groups, etc.

## 10.2 Stage 2 and common UP/CP aspects

### 10.2.1 Stage 2 TSs and running CR

TS 38.300, TS 37.340 rapporteur inputs (e.g. FFS lists, etc) and running CR to 36.300. Please submit any CRs to the appropriate agenda item.

### 10.2.2 Stage 2 corrections for EN-DC

No documents should be submitted to 10.2.2. Please submit to 10.2.2.x.

#### 10.2.2.2 User plane

Correction CRs to 38.300 or 37.340 for EN-DC related to user plane or common UP/CP aspects (i.e. that should be discussed with both user plane control plane people present)

#### 10.2.2.3 Other

Correction CRs to 38.300 or 37.340 for EN-DC other than those that fall into 10.2.2.2

### 10.2.3 Stage 2 corrections for non EN-DC

Correction CRs to 38.300 or 37.340 not related to EN-DC

### 10.2.4 Bandwidth parts

Stage 2 aspects of bandwidth parts for standalone operation. Note that corrections to bandwidth parts for EN-DC should be submitted to the appropriate UP or CP stage 3 AI.

### 10.2.5 Supplementary uplink

Stage 2 aspects of supplementary uplink for standalonne operation. Note that corrections to SUL for EN-DC should be submitted to the appropriate UP or CP stage 3 AI.

### 10.2.6 Mobility mechanisms - basic handover

Any remaining stage 2 aspects of basic handover (and not common to SCG change for EN-DC). Contributions should include a TP to show how the stage 2 specification would be impacted (if no stage 2 spec impact then the contribution should be submitted to an appropriate stage 3 AI)

### 10.2.7 Mobility mechanisms - other

Note decisions at RAN2#97bis to progress the basic HO mechanism and only when stable to discuss conditional handover and potential optimisations to target close to 0ms or 0ms interruption.

### 10.2.8 Mobility - RLM,RLF

Any remaining stage 2 aspects of radio link monitoring procedure and criteria for declaring radio link failure, including impact of beam failure/recovery. This AI will be discussed after receiving input from RAN1 on the questions we asked.

Maximum 1 tdoc per company

### 10.2.9 Mobility - Inter-RAT

Connected mode mobility between NR and E-UTRA.

RRM measurements to be discussed under appropriate stage 3 AI.

### 10.2.10 Security (non EN-DC)

Stage 2 aspects of security for cases other than EN-DC

### 10.2.11 Slicing

Including signalling of slice info to RAN, impact to access control, confirmation (or otherwise) of working assumption from RAN2#99 on use of dedicated prioritises to control idle mode mobility for slicing, etc

### 10.2.12 QoS

Any remaining stage 2 aspects, including QoS operation with DC.

Detailed topics should be discussed in stage 3 user plane

Note agreement at RAN2#97bis that QoS flow remapping at handover will be discussed when flow remapping not at handover has been progressed within user plane session.

### 10.2.13 Positioning

### 10.2.14 Other

Other stage 2 aspects for non EN-DC

## 10.3 Stage 3 user plane

Documents in this agenda item will be handled in the NR user plane break out session

### 10.3.1 MAC

#### 10.3.1.1 TS

Latest TS 38.321, rapporteur inputs, etc

Editorial and small corrections/clarifications should be provided to the rapporteur. Single rapporteur TP is encouraged for editorials and clarifications.

#### 10.3.1.2 MAC general aspects

Correction related to NR Unit, BWP and SUL general issues. Detailed functional corrections related to BWP and SUL should be submitted under corresponding function.

#### 10.3.1.3 MAC PDU format

Correction CRs related to MAC PDU format

New MAC CE formats related to RAN1 procedures

#### 10.3.1.4 Random access

##### 10.3.1.4.1 Differentiation of RA parameters

Discussion on this topic should resume where we left off after Dec. 2017. Converged papers are encouraged.

##### 10.3.1.4.2 Random access in presence of multi-beam operation

*Corrections/critical issues related to random access in presence of multi-beam operation*

##### 10.3.1.4.3 Random access procedures

Corrections/critical issues related to general random access procedure

#### 10.3.1.5 SR

Corrections/critical issues related to SR

#### 10.3.1.6 BSR

Corrections/critical issues related to BSR

#### 10.3.1.7 LCP

Corrections/critical issues related to LCP

#### 10.3.1.8 SPS/Grant-free

Corrections/critical issues related to Configured grant and SPS

#### 10.3.1.9 HARQ

Corrections/critical issues related to HARQ

#### 10.3.1.10 DRX

Contributions should focus on final critical issues/corrections for DRX

#### 10.3.1.11 Impact of PDCP duplication on MAC

MAC CE for activation/deactivation of PDCP duplication

Aspects related to fallback to split bearer and handling of RLC/PDCP entities during activation/deactivation should be submitted in AI 10.3.3.5

#### 10.3.1.12 PHR

Corrections/critical corrections related to PHR

#### 10.3.1.13 Other

Other corrections on topics not included in the detailed agenda items.

### 10.3.2 RLC

#### 10.3.2.1 TS

Latest TS 38.322, rapporteur inputs, etc

Editorial and small corrections/clarifications should be provided to the rapporteur. Single rapporteur TP is encouraged for editorials and clarifications.

#### 10.3.2.2 RLC header format

Corrections related to RLC header format

#### 10.3.2.3 Impact of PDCP duplication to RLC

#### 10.3.2.4

### 10.3.3 PDCP

#### 10.3.3.1 TS

Latest TS 38.323, rapporteur inputs, etc

Editorial and small corrections/clarifications should be provided to the rapporteur. Single rapporteur TP is encouraged for editorials and clarifications.

#### 10.3.3.2PDCP PDU formats

Corrections/critical issues related to PDCP PDU formats

#### 10.3.3.5 PDCP duplication

#### 10.3.3.7 Other

*Corrections/critical issues related to PDCP*

### 10.3.4 SDAP

#### 10.3.4.1 TS

Latest TS 37.324, rapporteur inputs, etc

#### 10.3.4.2 Header Format

Details of header format with the 8bit header size limitations. Contributions on RQI setting and size of QFI should be submitted in this AI.

#### 10.3.4.3 QoS flow remapping and handover

QoS flow remapping and handover within the same cell and need for default bearer (max 1 contribution per company for this topic)

#### 10.3.4.4 Others

*Number of SDAP entities and other remaining issues*

### 10.3.5 L2 parameters email discussion

Output from [100#34][NR] L2 parameter FFSs (Huawei)

## 10.4 Stage 3 control plane

### 10.4.1 NR RRC

#### 10.4.1.1 TS and running CR

38.331 rapporteur inputs including FFS list, running CR to add non-EN-DC aspects, etc. Please submit correction CRs to the appropriate agenda item.

#### 10.4.1.2 Specification methodology

#### 10.4.1.3 Connection control procedures

No documents should be submitted to 10.4.1.3. Please submit to 10.4.1.3.x.

##### 10.4.1.3.1 Connection reconfiguration message and bearer handling

Corrections related to connection reconfiguration procedures and not covered within the ASN.1 review.

##### 10.4.1.3.3 Connection reconfiguration message - L1 parameters

Corrections related to L1 parameters and not covered within the ASN.1 review.

Including output from email discussion [100#30][NR] L1 CSI meas config (Ericsson)

##### 10.4.1.3.4 Other (for EN-DCs)

Corrections related to connection control procedures for EN-DC and not covered within the ASN.1 review.

##### 10.4.1.3.5 Connection control message harmonisation

Harmonisation/merging of messages to be used for different procedures, UE identity and other message content to be used in different cases, etc.

Maximum 1 tdoc per company

##### 10.4.1.3.6 Other (for non EN-DC)

Other aspects of connection control procedures, state transitions, etc that are not relevant for EN-DC

#### 10.4.1.4 RRM measurements

No documents should be submitted to 10.4.1.4. Please submit to 10.4.1.4.x.

##### 10.4.1.4.1 Corrections to RRM for EN-DC

Corrections related to RRM measurement and measurement reporting for EN-DC and not covered within the ASN.1 review.

##### 10.4.1.4.2 Measurement gaps for EN-DC

Any remaining aspects of measurement gaps for EN-DC

##### 10.4.1.4.3 Measurement gaps for non EN-DC

##### 10.4.1.4.4 Measurement events

Any additional aspects of measurement events.

##### 10.4.1.4.5 Inter-RAT measurements

Inter-RAT E-UTRA measurements for the purpose of inter-RAT handover from NR to E-UTRA

##### 10.4.1.4.6 Other

Other RRM related aspects that are not related for EN-DC

#### 10.4.1.5 Mobility

No documents should be submitted to 10.4.1.5. Please submit to 10.4.1.5.x.

##### 10.4.1.5.1 Corrections SCG change for EN-DC

Corrections to 38.331 related to SCG change for EN-DC and not covered within the ASN.1 review.

##### 10.4.1.5.2 SCG failure for EN-DC

Corrections to 38.331 and 36.331 related to SCG failure for EN-DC and not covered within the ASN.1 review.

##### 10.4.1.5.3 Handover

Stage 3 details of basic handover.

#### 10.4.1.6 System information

No documents should be submitted to 10.4.1.6. Please submit to 10.4.1.6.x.

##### 10.4.1.6.1 MIB content

Correction CRs related to MIB content and not covered within ASN.1 review.

##### 10.4.1.6.2 System information content/structure

Progress details of the content and structure of system information (excluding MIB content covered in AI 10.4.1.6.1)

##### 10.4.1.6.3 Stored system information

Further details of stored SI including index/identifier format

Maximum 1 tdoc per company

##### 10.4.1.6.4 System information modification

Maximum 1 tdoc per company

##### 10.4.1.6.5 System information scheduling

Maximum 1 tdoc per company

##### 10.4.1.6.6 On demand system information

Including need for additional bit to indicate if SI message is actually being broadcast

##### 10.4.1.6.7 System information -other

Other system information related aspects

#### 10.4.1.7 Inactive state

No documents should be submitted to 10.4.1.6. Please submit to 10.4.1.6.x.

##### 10.4.1.7.1 RAN area configuration

Any further details of RAN area configuration given LS response to RAN3 from RAN2#99bis.

Maximum 1 tdoc per company

##### 10.4.1.7.2 RAN area update procedure

Maximum 1 tdoc per company

##### 10.4.1.7.3 Paging in inactive

RRC procedure to respond to paging, including any differences between RAN and CN paging

##### 10.4.1.7.4 Inter-RAT mobility between NR Inactive and E-UTRA/5GC Inactive

##### 10.4.1.7.5 Security framework for inactive

Security framework for inactive UEs to address FFS arising from email discussion 98#30.

##### 10.4.1.7.6 Inactive - other

Other inactive state related aspects

#### 10.4.1.8 Access control

No documents should be submitted to 10.4.1.8. Please submit to 10.4.1.8.x.

##### 10.4.1.8.1 Access control for Idle/Inactive

##### 10.4.1.8.2 Access control for connected

#### 10.4.1.9 Inter-Node RRC messages

No documents should be submitted to 10.4.1.9. Please submit to 10.4.1.9.x.

##### 10.4.1.9.1 Inter-Node RRC messages for EN-DC

Corrections to Inter-Node RRC messages used for EN-DC procedures not covered within the ASN.1 review.

Including output from email discussion [100#31][NR] Inter-Node RRC message (Samsung)

##### 10.4.1.9.2 Inter-Node RRC messages for non EN-DC

Start to progress structure and content of the Inter-Node RRC messages used for non EN-DC procedures.

#### 10.4.1.10 Other (non EN-DC)

Other RRC related aspects

### 10.4.2 LTE RRC changes related to NR

No documents should be submitted to 10.4.2. Please submit to 10.4.2.x.

#### 10.4.2.1 Running CR

36.331 rapporteur inputs including FFS list, running CR to add non-EN-DC aspects, etc. Please submit correction CRs to the appropriate agenda item.

#### 10.4.2.2 Corrections to RRM measurements for EN-DC

Corrections to 36.331 related to RRM procedures for EN-DC and not covered within the ASN.1 review.

#### 10.4.2.3 Corrections to other EN-DC aspects

Corrections to 36.331 related to EN-DC procedures other than RRM and not covered within the ASN.1 review.

### 10.4.3 EN-DC ASN.1 review

ASN.1 Review Issue List for 38.331 and 36.331, and discussion documents related to issues identified in the review. Issue number from the issue list is to be included in the title of all discussion documents.

### 10.4.4 UE capabilities

No documents should be submitted to 10.4.4. Please submit to 10.4.4.x.

#### 10.4.4.1 TS

38.306 rapporteur inputs including FFS list, etc. Please submit correction CRs to the appropriate agenda item.

#### 10.4.4.2 UE capability structure and UE capability coordination for EN DC

Including output from email discussion [100#32][NR] UE capabilities (Qualcomm)

#### 10.4.4.3 Other aspects for EN-DC

Including output from email discussion [100#33][NR] L2 buffer size (Intel)

Corrections to 38.306

#### 10.4.4.4 Temporary capability restriction

Maximum 1 tdoc per company

#### 10.4.4.5 Other aspects for non EN-DC

Any other aspect related to UE capabilities relevant for non EN-DC cases

### 10.4.5 Idle/inactive mode procedures

Documents in this agenda item will be handled in the NR user plane break out session

#### 10.4.5.1 TS

Latest 38.304, other rapporteur inputs, anything related to specification methodology. Please submit any new text proposals to the appropriate agenda item.

#### 10.4.5.2 Selection/reselection rules

Basic criteria and rules for cell selection and reselection

Maximum 1 tdoc per company

#### 10.4.5.3 Cell quality derivation

Derivation of cell quantity from beam measurements (including filtering and FFS points from previous meetings)

Maximum 1 tdoc per company

#### 10.4.5.4 Service based reselection

Maximum 1 tdoc per company

#### 10.4.5.5 Selection/reselection - other aspects

Including, for example mobility states, speed dependent scaling, forward compatibility for CSG, cell reservations, etc

#### 10.4.5.6 Idle/inactive paging

Including beam related aspects, response driven paging and calculation of paging occasion.

# 11 Rel-15 NR Study Items

## 11.1 Study on Integrated Access and Backhaul for NR

S\_NR\_IAB; leading WG: RAN2; REL-15; started: Mar. 17; target: Jun. 18: SID: RP-172102

Time budget: 0.5 TU

# 12 Comebacks

This agenda item will be used during the meeting. No documents are supposed to be submitted by delegates.

## 12.1 Breakout sessions

### 12.1.1 Report from Break-Out session

Report from session on NR Idle mode procedures

R2-17xxxxx Report from Break-Out Session, Vice-Chair (CMCC)

* CBF: Report from NR Idle mode procedures, Vice-Chair (CMCC)

### 12.1.2 Report from Break-Out session

Report from session on NR UP

R2-17xxxxx Report from Break-Out Session, Session Chair (InterDigital)

* CBF: Report from NR UP, Session Chair (InterDigital)

## 12.2 Main session

This section contains a temporary list of comebacks (press F9 to update while the cursor is inside the list).

## 13 Outgoing LSs

Draft LSs should be submitted to their corresponding agenda item if there is one. If there is no appropriate agenda item, draft LSs may be submitted to this agenda item.

# 14 Any other business

# 15 Closing of the meeting (17:00)