3GPP TSG-RAN WG2 Meeting #109 electronic R2-2001664

**24 Feb – 6 Mar 2020**

Source: RAN2 Session chair (InterDigital)

Title: Session minutes for NR-U, Power Savings, NTN and 2-step RACH

**E-meeting guidance:**

Please refer to:

R2-2002046  RAN2 109-e Methods and Guidance   Chairman, Vice Chairmen, Session Chairs   discussion Late

**Webinar tool**

Use the following link for tutorial

<https://assets.cdngetgo.com/5b/83/dda8d81d4bf6b9ec32632861505d/gotowebinar-attendee-slides-1.pptx>

***Use of question box (IMPORTANT - READ)***

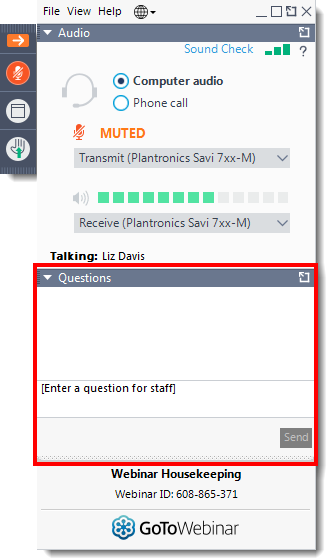
* **[Copying agreements]** I will be using the question/chat box to copy paste the agreements that are being shown live via screen sharing, so delegates that are experiencing delays can also see the agreements.
* **[Making comments/questions]** In addition to the raise hand, delegates can use the question box to enter specific comments/question using the guideline specified below (see below how to use it).

**Questions box etiquette**:

* Keep question/comment very short (1 line)
* Avoid multiple comments on one issue
* Only make a comment on the proposal that is currently being discussed
* Do not use question box to say you agree
* Please appoint a single delegate per proposal to make comments/questions

**When making a comment** please use a tag (to specify type of comment you want to make) followed by the actual comment/question. Use the following tags:

* Disagree: (what you disagree with/why)?
* Wording: (wording suggestion – copy only relevant part of the agreement so it remains short)
* Question: (only questions to understand the issue being discussed)
* Comment: (short description comment) – use this tag if it is none of the above



**Question/Chat box**

* Click on this undocking button to undock the question box and expand it for ease of readability.
* With the help of a moderator, we will be monitoring the questions/comments to determine who should speak next. This will be used in addition to the raise hand option.
* You will NOT be able to see comments/questions from other people. We will either call out the person to speak or we will read out the comment if it is short and quick
* This DOES NOT preclude the use of the hand function

**Organizational:**

1. LSs – contact companies should flag LSs that need presenting. Otherwise we will directly note them
2. Running CRs will be endorsed to be used as baseline and moved to email discussion. Further agreements will be captured on that baseline CR and further comments can only be provided online. Rapporteurs should flag if there is a big issue that needs to be discussed before the meeting
3. Only Email discussions and summary discussions will be treated during e-meetings (indicated clearly in the meeting notes)
4. All organization emails and notes will be shared over the following email discussion throughout the two meeting weeks:

* [AT109e][500] Organizational Diana - NR-U, 2-step RACH, Power Savings

Scope:

* + - Share plans for the meetings and list of ongoing email discussions for the sessions related to NR-U, 2-step RACH, and power saving
    - Share meetings notes and agreements for review and endorsement

**Schedule/Plan:**

**NR-U**

Monday February 24th, 13:30 – 15:30 CET

* Treat only flagged LS
* Endorse CRs without presentation and give revised numbers and move them to email discussions

Treat ongoing email discussions on open issues (**Email discussions**: [108#38] [108#75]

Tuesday, March 3rd 05:30– 6:30 CET

* Treat only email discussions on summary of remaining open issues (**Email discussions**: 501, 502, 503)

**Power saving:**

Tuesday, February 25th, 13:30 – 15:30 CET

* Treated only flagged LS
* Endorse CRs without presentation and give revised numbers and move them to email discussions
* Treat ongoing email discussions on open issues (**Email discussions**: [108#39][108#78][108#79])

Thursday, March 5th, 05:30– 6:30 CET

* Treat only email discussions on summary of remaining open issues (**Email discussions**: 504, 505, 506)

**2-step RACH:**

Wednesday, February 26th, 15:30 – 17:30 CET

* Treated only flagged LS
* Endorse CRs without presentation and give revised numbers and move them to email discussions
* Treat ongoing email discussions on open issues (**Email discussions: [108#82] [108#82]** )

Wednesday, March 4th, 05:30– 6:30 CET

* Treat only email discussions on summary of remaining open issues (**Email discussions**: 507, 508)

**List of offline email discussions:**

*NOTE: The official kickoff date for these email discussions are Monday 24th, however the rapporteurs can send them before this date and companies are welcome to participate before (but do not have to until the official kick off on Monday, Feb. 24th)*

**NR-U**

* [AT109e][501][NR-U] UP Open Issues for RACH and UL LBT (InterDigital)

Scope:

* + - Identify/Summarize all remaining open issues related to RACH and UL LBT from submitted papers in 6.2.2.1 and 6.2.2.2 and seek companies feedback on the need to solve the critical issue and preferred solutions.

Intended outcome:

* + - Set of proposals with full consensus (aim to agree to those over email)
    - Set of proposals with almost full consensus and easy to agree
    - Set of open issues and proposals to postpone to next meeting.
    - Open issues that should no longer be pursued

Deadline for providing comments:

* + - Companies input: Wednesday, Feb. 26th 15:00 CET
    - Rapporteur proposals: Thursday, Feb. 27th 3:00 CET (one day for rapporteur to make conclusions)
    - Comments on proposals’ wording, Friday, Feb. 28th by 18:00 CET
* [AT109e][502][NR-U] UP open issues for CG and Others AI (OPPO)

Scope:

* + - Identify/Summarize all remaining open issues related to CG and Other AI from submitted papers in 6.2.2.3 and 6.2.2.4 and seek companies feedback on the need to solve the critical issue and preferred solutions.

Intended outcome:

* + - Set of proposals with full consensus (aim to agree to those over email)
    - Set of proposals with almost full consensus and easy to agree
    - Set of open issues and proposals to postpone to next meeting.
    - Open issues that should no longer be pursued

Deadline for providing comments:

* + - Companies input: Thursday, Feb. 27th 3:00 CET
    - Rapporteur proposals: Thursday, Feb. 27th 17:00 CET
    - Comments on proposals’ wording, Monday March 2nd by 10:00 CET
* [AT109e][503][NR-U] CP open issues (Qualcomm)

Scope:

* + - Identify/Summarize all remaining open issues related to Mobility and Others from AI 6.2.3.1 and 6.2.3.2 and seek companies feedback on the need to solve the critical issue and preferred solutions.

Intended outcome:

* + - Set of proposals with full consensus (aim to agree to those over email)
    - Set of proposals with almost full consensus and easy to agree
    - Set of open issues and proposals to postpone to next meeting.
    - Open issues that should no longer be pursued

Deadline for providing comments:

* + - Companies input: Wednesday, Feb. 26th 18:00 CET
    - Rapporteur proposals: Thursday, Feb. 27th 4:00 CET (one day for rapporteur to make conclusions)
    - Comments on proposals’ wording, Friday, Feb. 28th by 20:00 CET

**Power Saving**

* [AT109e][504][PowSav] PDCCH related open issues (CATT)

Scope:

* + - Identify/Summarize all remaining open issues related to PDCCH-based power saving signal from AI 6.11.2 and seek companies feedback on the need to solve the critical issue and preferred solutions.

Intended outcome:

* + - Set of proposals with full consensus (aim to agree to those over email)
    - Set of proposals with almost full consensus and easy to agree
    - Set of open issues and proposals to postpone to next meeting.
    - Open issues that should no longer be pursued

Deadline for providing comments:

* + - Companies input: Wednesday, Feb. 26th 17:00 CET
    - Rapporteur proposals: Thursday, Feb. 27th 17:00 CET (one day for rapporteur to make conclusions)
    - Comments on proposals’ wording, Monday, March 2nd by 12:00 CET
* [AT109e][505][PowSav] UE assistance open issues (Qualcomm)

Scope:

* + - Identify/Summarize all remaining open issues related to UE assistance open issues from AI 6.11.3 and seek companies feedback on the need to solve the critical issue and preferred solutions.

Intended outcome:

* + - Set of proposals with full consensus (aim to agree to those over email)
    - Set of proposals with almost full consensus and easy to agree
    - Set of open issues and proposals to postpone to next meeting.
    - Open issues that should no longer be pursued

Deadline for providing comments:

* + - Companies input: Wednesday , Feb. 26th 18:00 CET
    - Rapporteur proposals: Thursday, Feb. 27th 6:00 CET (one day for rapporteur to make conclusions)
    - Comments on proposals’ wording: Monday, March 2nd by 17:00 CET
* [AT109e][506][PowSav] RRM relaxation (Huawei)

Scope:

* + - Identify/Summarize all remaining open issues related to RRM relaxation from AI 6.11.4 and seek companies feedback on the need to solve the critical issue and preferred solutions.

Intended outcome:

* + - Set of proposals with full consensus (aim to agree to those over email)
    - Set of proposals with almost full consensus and easy to agree
    - Set of open issues and proposals to postpone to next meeting.
    - Open issues that should no longer be pursued

Deadline for providing comments:

* + - Companies input: Wednesday, Feb. 26th 18:00 CET
    - Rapporteur proposals: Thursday, Feb. 27th 6:00 CET (one day for rapporteur to make conclusions)
    - Comments on proposals’ wording, Monday, March 2nd by 17:00 CET

**2-step RACH**

* [AT109e][507][2-step RA] UP open issues (ZTE)

Scope:

* + - Identify/Summarize all remaining open issues related to UP open issues from AI 6.13.2 and seek companies feedback on the need to solve the critical issue and preferred solutions.

Intended outcome:

* + - Set of proposals with full consensus (aim to agree to those over email)
    - Set of proposals with almost full consensus and easy to agree
    - Set of open issues and proposals to postpone to next meeting.
    - Open issues that should no longer be pursued

Deadline for providing comments:

* + - Companies input: Thursday, Feb. 27th 18:00 CET
    - Rapporteur proposals: Friday, Feb. 28th 18:00 CET (one day for rapporteur to make conclusions)
    - Comments on proposals’ wording, Tuesday, March 3rd by 08:00 CET
* [AT109e][508][2-step RA] CP open issues (Ericsson)

Scope:

* + - Identify/Summarize all remaining open issues related to CP open issues f4rom AI 6.13.3 and related CP issues in 6.13.4 and seek companies feedback on the need to solve the critical issue and preferred solutions.

Intended outcome:

* + - Set of proposals with full consensus (aim to agree to those over email)
    - Set of proposals with almost full consensus and easy to agree
    - Set of open issues and proposals to postpone to next meeting.
    - Open issues that should no longer be pursued

Deadline for providing comments:

* + - Companies input: Thursday, Feb. 27th 18:00 CET
    - Rapporteur proposals: Friday, Feb. 28th 18:00 CET (one day for rapporteur to make conclusions)
    - Comments on proposals’ wording, Tuesday, March 3rd by 08:00 CET

NOTE: deadlines are meant to allow at least all regions to have one day to comment (other than weekend) and also give rapporteurs time to update their proposals before the meeting)

## 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)

**The LSs should only be presented if the presenting companies flag it, otherwise they will be noted.**

R2-2000018 Reply LS on PHR reporting for NR-U (R1-1913584; contact: Lenovo) RAN1 LS in Rel-16 NR\_unlic-Core To:RAN2

R2-2000016 Response LS to RAN2 LS on SFN LSB indication in msg2/msgB (R1-1913582; contact: Qualcomm) RAN1 LS in Rel-16 NR\_unlic-Core, NR\_2step\_RACH-Core To:RAN2

R2-2000021 LS on signaling of Q for a serving cell in NR-U (R1-1913592; contact: Nokia) RAN1 LS in Rel-16 NR\_unlic To:RAN2

**CRs to be endorsed without presentation as baseline. Further agreements will be captured using these CRs as a baseline and companies can continue further discussions over email:**

R2-2000414 Running CR to 37.340 for NR-U OPPO CR Rel-16 37.340 16.0.0 0183 - B NR\_unlic-Core

=> The CR will be used as a baseline, will be revised to include all new agreements from RAN2#109e, and moved for email discussion after the meeting [if new agreements are made]

* [109e][NR-U] – 37.340 Intro to NR-U CR (Ericsson)

Intended outcome: approve CR for plenary submission

Deadline: Thursday 03/12/2020

R2-2001254 Running RRC CR for NR Shared Spectrum Qualcomm Incorporated CR Rel-16 38.331 15.8.0 1477 - B NR\_unlic-Core

=> The CR will be used as a baseline, will be revised to include all new agreements from RAN2#109e, and moved for email discussion after the meeting

* [109e][NR-U] – 38.331 Intro to NR-U CR (Qualcomm)

Intended outcome: approve CR for plenary submission

Deadline: Thursday 03/12/2020

R2-2001267 Running Stage-2 CR for NR Shared Spectrum Qualcomm Incorporated CR Rel-16 38.300 16.0.0 0199 - B NR\_unlic-Core

=> The CR will be used as a baseline, will be revised to include all new agreements from RAN2#109e, and moved for email discussion after the meeting

* [109e][NR-U] – 28.300 Intro to NR-U CR (Qualcomm)

Intended outcome: approve CR for plenary submission

Deadline: Thursday 03/12/2020

R2-2001435 Running Idle/Inactive CR for NR Shared Spectrum Qualcomm Incorporated CR Rel-16 38.304 15.6.0 0149 - B NR\_unlic-Core

=> The CR will be used as a baseline, will be revised to include all new agreements from RAN2#109e, and moved for email discussion after the meeting

* [109e][NR-U] – 38.304 Intro to NR-U CR (Qualcomm)

Intended outcome: approve CR for plenary submission

Deadline: Thursday 03/12/2020

R2-2001341 Running MAC CR for NR-U Ericsson CR Rel-16 38.321 15.8.0 0694 - B NR\_unlic-Core

=> The CR will be used as a baseline, will be revised to include all new agreements from RAN2#109e, and moved for email discussion after the meeting

* [109e][NR-U] – 38.321 Intro to NR-U CR (Ericsson)

Intended outcome: approve CR for plenary submission

Deadline: Thursday 03/12/2020

**To be treated in the first slot in the week of Feb. 24th**

R2-2001343 Summary of open issues for NR-U Running 38.321 Ericsson discussion Rel-16 NR\_unlic-Core Late

=> Revised in R2-2001918

R2-2001918 Summary of open issues for NR-U Running 38.321 Ericsson discussion Rel-16 NR\_unlic-Core Late

R2-2001437 Control Plane Open Issues for NR Shared Spectrum Qualcomm Incorporated discussion Late

### 6.2.2 User plane

**To be discussed over email officially kicked off during e-meeting week (as offline email discussion) and treated the second slot, Week of March 2nd:**

R2-2001911 NR-U UP Summary for RACH and UL LBT InterDigital discussion Rel-16 NR\_unlic-Core

[Offline discussion 501]

R2-2002029 NR-U UP Summary for CG and Others AI OPPO discussion Rel-16 NR\_unlic-Core

[Offline discussion 502]

#### 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

**This will not be treated**

R2-2000145 Further Consideration on RACH Procedure in NR-U vivo discussion R2-1914370

R2-2000146 Issue on the Autonomous BWP Awitching in NR-U vivo discussion R2-1914366

R2-2000147 LBT Impacts on 2-step RACH vivo discussion R2-1914368

R2-2000416 2-step RACH for NR-U OPPO discussion Rel-16 NR\_unlic-Core

R2-2000771 RA procedure considering SSBs with QCL relationship Fujitsu discussion Rel-16 NR\_unlic-Core

R2-2000851 MSGA PUSCH LBT failure and PDCCH decoding Nokia, Nokia Shanghai Bell discussion Rel-16 NR\_unlic-Core

R2-2000958 Remaining issue on 2-step random access in NRU Huawei, HiSilicon discussion Rel-16 NR\_unlic-Core

R2-2001208 Remaining issues on RACH Ericsson discussion NR\_unlic-Core

R2-2001209 Gapless msgA transmissions in NR-U Ericsson discussion NR\_unlic-Core

R2-2001449 Additional opportunity for Msg1 in 4-step RACH LG Electronics Polska discussion Rel-16 NR\_unlic-Core R2-1915920

R2-2001606 Consideration for C-RNTI monitoring in NR-U LG Electronics Polska discussion Rel-16 NR\_unlic-Core

#### 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

**This will not be treated**

R2-2000148 Remaining Issues of UL LBT Failure vivo discussion R2-1914367

R2-2000415 Remaining issues on consistent uplink LBT failure for NR-U OPPO discussion Rel-16 NR\_unlic-Core

R2-2000449 Remaining issues on UL LBT failures handling Intel Corporation discussion Rel-16 NR\_unlic-Core

R2-2000534 LBT failure handling considering SUL aspect Samsung discussion Rel-16 NR\_unlic-Core

R2-2000563 LBT Failures Handling in Non-Connected State Spreadtrum Communications discussion R2-1915015

R2-2000603 SpCell LBT Failure MAC CE Delivery Apple, vivo discussion Rel-16 NR\_unlic-Core

R2-2000737 Handling of consistent UL LBT failures during HO ITRI discussion NR\_unlic-Core R2-1913064

R2-2000772 [Eri10] SR resources for consistent LBT failure Fujitsu discussion Rel-16 NR\_unlic-Core

R2-2000822 UE behavior upon consistent LBT failure Lenovo, Motorola Mobility discussion Rel-16 NR\_unlic-Core

R2-2000840 Remaining issues on consistent LBT failures and BWP switching MediaTek Inc. discussion Rel-16 NR\_unlic-Core

R2-2000904 On counting the LBT failure of a BWP with multiple sub-bands CMCC discussion Rel-16 R2-1915197

R2-2000941 Uplink transmission upon detection of LBT failure Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_unlic-Core

R2-2000957 Remaining issue on handling UL LBT failure Huawei, HiSilicon discussion Rel-16 NR\_unlic-Core

R2-2000963 Remaining issues on LBT failure MAC CE Huawei, HiSilicon discussion Rel-16 NR\_unlic-Core

R2-2000999 The remaining issues for UL LBT failure ZTE Corporation, Sanechips discussion Rel-16

R2-2001207 Handling consistent UL LBT failures Ericsson discussion NR\_unlic-Core

#### 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

**This will not be treated**

R2-2000417 Remaining issues on NR-U configured grant OPPO discussion Rel-16 NR\_unlic-Core Late

R2-2000821 HARQ process configuration for configured grants Lenovo, Motorola Mobility discussion Rel-16 NR\_unlic-Core

R2-2000841 Issues on retransmissions across different configured grant configurations MediaTek Inc. discussion Rel-16 NR\_unlic-Core

R2-2000959 Remaining issue on configured grant Huawei, HiSilicon discussion Rel-16 NR\_unlic-Core

R2-2001205 Configured Grant remaining issues Ericsson discussion NR\_unlic-Core

R2-2001206 Channel access priority for Configured Grant Ericsson discussion NR\_unlic-Core

R2-2001442 Consideration of delayed CG confirmation LG Electronics Polska discussion Rel-16 NR\_unlic-Core

#### 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

**This will not be treated**

R2-2000149 Remaining Issues on CAPC Selection for Configured Grant vivo discussion

R2-2000154 Consideration on SR transmission colliding with PUSCH transmission Xiaomi Communications discussion Rel-16 R2-1915956 Late

R2-2000172 Consideration on SR transmission colliding with PUSCH transmission Xiaomi Communications discussion Rel-16 R2-1915956 Late

R2-2000173 Consideration on SR transmission colliding with PUSCH transmission Xiaomi Communications discussion Rel-16 R2-1915956

R2-2000176 Remaining issues of CAPC Huawei, HiSilicon discussion Rel-16 NR\_unlic-Core

R2-2000535 Applicability of NR-U features to licensed carrier Samsung discussion Rel-16 NR\_unlic-Core R2-1915222

R2-2000669 LBT failure measurement report handling Nokia, Nokia Shanghai Bell discussion Rel-16 NR\_unlic-Core

R2-2000838 PHR for NR-U Lenovo, Motorola Mobility discussion Rel-16 NR\_unlic-Core

R2-2000842 On PHR and autonomous retransmissions MediaTek Inc. discussion Rel-16 NR\_unlic-Core R2-1913262

R2-2000960 PHR reporting for NR-U Huawei, HiSilicon discussion Rel-16 NR\_unlic-Core

R2-2000961 Reply LS on PHR report Huawei, HiSilicon discussion Rel-16 NR\_unlic-Core

R2-2000962 Disucssion PDCCH group switching Huawei, HiSilicon discussion Rel-16 NR\_unlic-Core

R2-2001094 CAPC selection for UL transmissions Intel Corporation discussion Rel-16 NR\_unlic-Core

R2-2001108 Remaining CAPC aspects for CG when SRB is multiplexed NEC Telecom MODUS Ltd. discussion

R2-2001204 Remaining issue on PHR Ericsson discussion NR\_unlic-Core

R2-2001450 Dynamic DL opportunity enhancement based on channel busy level in NR-U LG Electronics Polska discussion Rel-16 NR\_unlic-Core R2-1915921

R2-2001451 MAC impacts of multiple CCAs in wide band operation LG Electronics Polska discussion Rel-16 NR\_unlic-Core R2-1916153

### 6.2.3 Control plane

**To be discussed over email (as offline email discussion) and treated the second slot, Week of March 2nd.**

R2-2002022 NR-U Control Plan Summary Qualcomm Incorporated discussion Rel-16 NR\_unlic-Core

[Offline discussion 503]

#### 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

**This will not be treated**

R2-2000151 Short Message for Stopping Paging Monitoring in NR-U vivo discussion

R2-2000336 Remaining issues on Paging Ericsson discussion NR\_unlic-Core

R2-2000337 RRM in NR-U Ericsson discussion NR\_unlic-Core

R2-2000403 Handling of SIB1 decoding error Nokia, Nokia Shanghai Bell discussion Rel-16 NR\_unlic-Core

R2-2000405 On RLM and RLF Issues in NR-U Mediatek Inc. discussion

R2-2000670 LS on LBT failure measurement report handling Nokia, Nokia Shanghai Bell LS out Rel-16 NR\_unlic-Core To:RAN4

R2-2001546 Cell selection after consecutive UL LBT failures LG Electronics Inc. discussion

R2-2001547 Support of conditional handover for NR-U LG Electronics Inc. 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

**This will not be treated**

R2-2000150 UE Capability for NR-U Support vivo draftCR Rel-16 38.306 15.8.0 NR\_unlic

R2-2000338 Signaling of Q in NR-U Ericsson discussion

R2-2000404 Including RSSI and Channel Occupancy in NR-U UE Capabilities Mediatek Inc. draftCR Rel-16 38.306 15.8.0 C NR\_unlic, NR\_unlic-Core R2-1914584

R2-2000418 Stopping criteria for paging monitoring OPPO discussion Rel-16 NR\_unlic-Core

R2-2000442 UE Capabilities for Measurements in NR-U Mediatek Inc. discussion

R2-2000671 using spare from SIB1 Nokia, Nokia Shanghai Bell discussion Rel-16 NR\_unlic-Core

R2-2000672 Q values per cell and useInterlacePUCCH coding Nokia, Nokia Shanghai Bell discussion Rel-16 NR\_unlic-Core

R2-2000673 intraCellGuardBand coding Nokia, Nokia Shanghai Bell discussion Rel-16 NR\_unlic-Core

R2-2000905 Further enhancement of reporting for NR-U cell reselection CMCC discussion Rel-16

R2-2000964 Discussion on the remaining issues in RRC signalling Huawei, HiSilicon discussion Rel-16 NR\_unlic-Core

R2-2001422 SUL Operating over NR-U Samsung discussion NR\_unlic-Core

R2-2001432 On Indicating LBT Failure for NR-U Samsung discussion NR\_unlic-Core

R2-2001469 Enhancements to MIB transmission OPPO discussion Rel-16 NR\_unlic-Core

R2-2001548 Stopping condition for paging monitoring LG Electronics Inc. discussion

R2-2001549 RLMRLF in NR-U LG Electronics Inc. discussion

## 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)

**LS to be treated only if the contact company flags it for presentation. Otherwise, it is directly Noted**

R2-2000017 LS reply to RAN2 on WUS for short DRX cycle (R1-1913583; contact: CATT) RAN1 LS in Rel-16 NR\_UE\_pow\_sav-Core To:RAN2

R2-2000098 LS reply on CSI/SRS reporting (R1-1913480; contact: Vivo) RAN1 LS in Rel-16 NR\_UE\_pow\_sav-Core To:RAN2 Cc:RAN4

**The following CRs should be endorsed as baseline from email discussion and used to capture the additional agreements from the e-meeting**

R2-2000364 Running 38.304 CR on UE Power saving in NR vivo (rapporteur) CR Rel-16 38.304 15.6.0 0145 - B FS\_NR\_UE\_pow\_sav

=> The CR will be used as a baseline, will be revised to include all new agreements from RAN2#109e, and moved for email discussion after the meeting

* [109e][PowSaving] – 38.304 Intro to Power Saving CR (Vivo)

Intended outcome: approve CR for plenary submission

Deadline: Thursday 03/12/2020

R2-2000411 Running CR to 37.340 for power saving OPPO CR Rel-16 37.340 16.0.0 0184 - B NR\_UE\_pow\_sav-Core

=> The CR will be used as a baseline, will be revised to include all new agreements from RAN2#109e, and moved for email discussion after the meeting

* [109e][PowSaving] – 37.340 Intro to Power Saving CR (Oppo)

Intended outcome: approve CR for plenary submission

Deadline: Thursday 03/12/2020

R2-2000843 Running CR for 38.331 for Power Savings MediaTek Inc. CR Rel-16 38.331 15.8.0 1469 - B FS\_NR\_UE\_pow\_sav R2-1915548 Late

=> The CR will be used as a baseline, will be revised to include all new agreements from RAN2#109e, and moved for email discussion after the meeting

* [109e][PowSaving] – 38.331 Intro to Power Saving CR (Mediatek)

Intended outcome: approve CR for plenary submission

Deadline: Thursday 03/12/2020

R2-2000888 Introduction of UE Power Saving in NR CATT CR Rel-16 38.300 16.0.0 0193 - B NR\_UE\_pow\_sav-Core

=> The CR will be used as a baseline, will be revised to include all new agreements from RAN2#109e, and moved for email discussion after the meeting

* [109e][PowSaving] – 38.300 Intro to Power Saving CR (CATT)

Intended outcome: approve CR for plenary submission

Deadline: Thursday 03/12/2020

R2-2001615 Running CR for Introduction of Rel-16 NR UE power saving in TS 38.321 Huawei CR Rel-16 38.321 15.8.0 0699 - B NR\_UE\_pow\_sav-Core Late

=> The CR will be used as a baseline, will be revised to include all new agreements from RAN2#109e, and moved for email discussion after the meeting

* [109e][PowSaving] – 38.321 Intro to Power Saving CR (Huawei)

Intended outcome: approve CR for plenary submission

Deadline: Thursday 03/12/2020

**The following email discussions will be treated during the first slot of e-meetings**

R2-2000844 Email discussion summary on running 38.331 CR for Power Saving MediaTek Inc. discussion Rel-16 FS\_NR\_UE\_pow\_sav Late

=> Revised in R2-2001912

R2-2001912 Email discussion summary on running 38.331 CR for Power Saving MediaTek Inc. discussion Rel-16 FS\_NR\_UE\_pow\_sav Late

R2-2000365 Report of EmailDisc-79 on open issues for RRM measurement relaxation vivo (rapporteur) discussion Rel-16 FS\_NR\_UE\_pow\_sav

=> Revised in R2-2002100

R2-2002100 Report of EmailDisc-79 on open issues for RRM measurement relaxation vivo (rapporteur) discussion Rel-16 FS\_NR\_UE\_pow\_sav

R2-2001616 Report of email discussion [108#78][Power Saving] 38.321 open issues Huawei report Rel-16 NR\_UE\_pow\_sav-Core

**Response LSs should be agreed by email discussion if we decided they are needed**

R2-2000366 Draft LS to RAN4 on RRM measurement relaxation in power saving vivo LS out Rel-16 FS\_NR\_UE\_pow\_sav To:RAN4

R2-2001617 [Draft] LS on MAC-PHY modelling for DCP Huawei LS out Rel-16 NR\_UE\_pow\_sav-Core To:RAN WG1 Late

R2-2000452 UE capabilities for Rel-16 UE power saving WI Intel Corporation discussion Rel-16 NR\_UE\_pow\_sav

R2-2000453 UE capabilities for Rel-16 UE power saving WI Intel Corporation CR Rel-16 38.306 15.8.0 0231 - B NR\_UE\_pow\_sav

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

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

**To be discussed over email officially kicked off during e-meeting week (as offline email discussion) and treated the second slot, Week of March 2nd:**

R2-2001913 Summary of open issues for PDCCH CATT

[Offline discussion 504]

**This will not be treated**

R2-2000253 Contributions summary on further impacts of DCP CATT discussion Rel-16 NR\_UE\_pow\_sav-Core Late

R2-2000254 New issue on CSI reporting with DCP CATT discussion Rel-16 NR\_UE\_pow\_sav-Core

R2-2000349 Open issues DCP Ericsson discussion Rel-16 NR\_newRAT-Core

R2-2000367 PDCCH-WUS not applicable for short DRX cycle vivo discussion Rel-16 FS\_NR\_UE\_pow\_sav

R2-2000368 WUS impact on CSI reporting vivo discussion Rel-16 FS\_NR\_UE\_pow\_sav

R2-2000412 Remaining issues on DCP OPPO discussion Rel-16 NR\_UE\_pow\_sav-Core

R2-2000413 Impacts of power saivng signalling on CSI reporting OPPO discussion Rel-16 NR\_UE\_pow\_sav-Core

R2-2000450 Open issues of DCP feature Intel Corporation discussion Rel-16 NR\_UE\_pow\_sav

R2-2000584 PDCCH-WUS Mechanism Apple discussion Rel-16 NR\_UE\_pow\_sav-Core R2-1915924

R2-2000599 PDCCH-WUS and Short DRX Cycle Apple discussion Rel-16 NR\_UE\_pow\_sav-Core

R2-2000665 Discussion on introduction of search space for the DCP ZTE Corporation, Sanechips discussion Rel-16 NR\_UE\_pow\_sav-Core

R2-2000666 Introduction of search space for the DCP in TS38.331 ZTE Corporation, Sanechips CR Rel-16 38.331 15.8.0 B NR\_UE\_pow\_sav-Core

R2-2000811 Discussion on PDCCH-WUS missing problems during handover Xiaomi Communications discussion

R2-2001037 On DRX ambiguous period Nokia, Nokia Shanghai Bell discussion Rel-16 NR\_UE\_pow\_sav-Core

R2-2001038 On DCP monitoring and CSI/SRS transmission Nokia, Nokia Shanghai Bell discussion Rel-16 NR\_UE\_pow\_sav-Core

R2-2001040 On short DRX cycle applicability for DCP Nokia, Nokia Shanghai Bell discussion Rel-16 NR\_UE\_pow\_sav-Core

R2-2001300 Consideration on Short DRX cycle on DCP LG Electronics Inc. discussion NR\_UE\_pow\_sav-Core

R2-2001463 Remaining issues on WUS signal for Power Saving ZTE Corporation, Sanechips discussion Rel-16 NR\_UE\_pow\_sav-Core

R2-2001482 Wakeup signaling with DRX groups Qualcomm Inc, Samsung discussion Rel-16

### 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

**To be discussed over email officially kicked off during e-meeting week (as offline email discussion) and treated the second slot, Week of March 2nd:**

R2-2001914 Summary of open issues for UE assistance Qualcomm

[Offline discussion 505]

**This will not be treated**

R2-2000255 Reporting UE Assistance Info to NR SN CATT discussion Rel-16 NR\_UE\_pow\_sav-Core

R2-2000350 Open issues for UE assistance Ericsson discussion Rel-16 NR\_newRAT-Core

R2-2000351 Open issues for MR-DC scenarios Ericsson discussion Rel-16 NR\_newRAT-Core

R2-2000369 UE assistance information for power saving vivo discussion Rel-16 FS\_NR\_UE\_pow\_sav

R2-2000451 Open issues of new UE assistance information for PWS Intel Corporation discussion Rel-16 NR\_UE\_pow\_sav

R2-2000585 UE Assistance Information for MR-DC Apple discussion Rel-16 NR\_UE\_pow\_sav-Core

R2-2000596 UE Assistance Information for Scell Apple discussion Rel-16 NR\_UE\_pow\_sav-Core R2-1915926

R2-2000649 Remaining open issues on UE assistance information OPPO discussion Rel-16 NR\_UE\_pow\_sav-Core

R2-2000826 Power Saving UE assistance information Sony discussion Rel-16 NR\_UE\_pow\_sav-Core R2-1915232 Withdrawn

R2-2000869 Power Saving UE assistance information Sony Europe B.V. discussion Rel-16 NR\_UE\_pow\_sav-Core

R2-2001301 Remaining issue on UE assistance LG Electronics Inc. discussion NR\_UE\_pow\_sav-Core

R2-2001330 Remaining issues on UE assistance information Huawei, HiSilicon discussion Rel-16 NR\_UE\_pow\_sav-Core

R2-2001483 Remaining issues on UE Assistancec Information Qualcomm Inc discussion Rel-16

R2-2002025 Summary of open issues on UE assistance Qualcomm discussion Rel-16 NR\_UE\_pow\_sav-Core

### 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

**To be discussed over email officially kicked off during e-meeting week (as offline email discussion) and treated the second slot, Week of March 2nd:**

R2-2001915 Summary of RRM measurement relaxation open issues Huawei

[Offline discussion 506]

**This will not be treated**

R2-2000256 Way forward on measurement relaxation with high priority frequencies CATT discussion Rel-16 NR\_UE\_pow\_sav-Core

R2-2000312 Configurations for RRM Measurement Relaxation in NR MediaTek Inc. discussion

R2-2000352 Open issues RRM measurement relaxation Ericsson discussion Rel-16 NR\_newRAT-Core

R2-2000370 UE Power Consumption Reduction in RRM Measurement vivo discussion Rel-16 FS\_NR\_UE\_pow\_sav R2-1914694

R2-2000595 Open Issues of RRM Measurement Relaxation Apple discussion Rel-16 NR\_UE\_pow\_sav

R2-2000827 UE power saving for inter frequency measurements Sony discussion Rel-16 NR\_UE\_pow\_sav-Core R2-1915233

R2-2000913 Discussion on power saving for inter-frequency measurements CMCC discussion NR\_UE\_pow\_sav-Core R2-1915210

R2-2001039 On RRM measurement relaxation Nokia, Nokia Shanghai Bell discussion Rel-16 NR\_UE\_pow\_sav-Core

R2-2001063 On SrxlevRef adaptation in relaxed monitoring Huawei, HiSilicon discussion Rel-16 NR\_UE\_pow\_sav-Core R2-1915529

R2-2001064 Reducing the number of neighbour cells/carriers to measure Huawei, HiSilicon discussion Rel-16 NR\_UE\_pow\_sav-Core R2-1915530

R2-2001401 Coexistence issues of measurement relaxation and early measurements LG Electronics, Ericsson, MediaTek discussion Rel-16 NR\_UE\_pow\_sav-Core

R2-2001402 Per-frequency measurement relaxation based on neighbour cell quality LG Electronics discussion Rel-16 NR\_UE\_pow\_sav-Core

R2-2001577 RRM measurement relaxation Samsung discussion NR\_UE\_pow\_sav-Core

R2-2001643 On the frequency selection for RRM relaxation Samsung R&D Institute UK discussion

## 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)

**The following CRs should be endorsed as baseline from the email discussion and used to capture the additional agreements from the e-meeting**

R2-2000942 Stage-2 running CR for 2-step RACH Nokia (rapporteur), Nokia Shanghai Bell CR Rel-16 38.300 16.0.0 0197 - B NR\_2step\_RACH-Core

=> The CR will be used as a baseline, will be revised to include all new agreements from RAN2#109e, and moved for email discussion after the meeting

* [109e][2-step RACH] – 38.300 Intro to 2-step RACH CR (Nokia)

Intended outcome: approve CR for plenary submission

Deadline: Thursday 03/12/2020

R2-2000997 Running MAC CR for 2-step RACH ZTE Corporation (email discussion rapporteur) CR Rel-16 38.321 15.8.0 0692 - B NR\_2step\_RACH-Core, NR\_unlic-Core, TEI16

=> The CR will be used as a baseline, will be revised to include all new agreements from RAN2#109e, and moved for email discussion after the meeting

* [109e][2-step RACH] – 38.321 Intro to 2-step RACH CR (ZTE)

Intended outcome: approve CR for plenary submission

Deadline: Thursday 03/12/2020

R2-2001217 Draft CR 2-step RA 38.331 Running CR Ericsson (Email disc rapporteur) draftCR Rel-16 38.331 15.8.0 B NR\_2step\_RACH-Core

=> The CR will be used as a baseline, will be revised to include all new agreements from RAN2#109e, and moved for email discussion after the meeting

* [109e][2-step RACH] – 38.331 Intro to 2-step RACH CR (Ericsson)

Intended outcome: approve CR for plenary submission

Deadline: Thursday 03/12/2020

**The following email discussions will be treated during the first slot of e-meeting**s

R2-2000995 Summary of open issues in MAC running CR - Updated ZTE Corporation (email discussion rapporteur) discussion Rel-16 LateR2-2001218 Open issues for RRC Ericsson (Email disc rapporteur) discussion Rel-16 NR\_2step\_RACH-Core

R2-2001219 Phase 2 and phase 1 issue list Ericsson (Email disc rapporteur) discussion Rel-16 NR\_2step\_RACH-Core

R2-2000992 Summary of running MAC CR review issue list - phase 1 ZTE Corporation (email discussion rapporteur) report Rel-16

R2-2000993 Summary of running MAC CR review issue list - phase 2 ZTE Corporation (email discussion rapporteur) report Rel-16

R2-2000994 Summary of open issues in MAC running CR ZTE Corporation (email discussion rapporteur) discussion Rel-16

R2-2000996 Draft-Running MAC CR for 2-step RACH ZTE Corporation (email discussion rapporteur) draftCR Rel-16 38.321 15.8.0 B NR\_2step\_RACH-Core, NR\_unlic-Core, TEI16

### 6.13.2 Other user plane stage-3 aspects

RA-RNTI design and open aspects of contention resolution.

**To be discussed over email officially kicked off during e-meeting week (as offline email discussion) and treated the second slot, Week of March 2nd:**

R2-2001916 Summary of UP open issues ZTE

[Offline discussion 507]

**This will not be treated**

R2-2000141 Simultaneous BWP Switching and Contention Resolution in 2-step RACH vivo discussion

R2-2000142 Resource Selection for 2-step RACH Considering Measurment Gap vivo discussion R2-1914377

R2-2000143 Handling of the Collision Between MsgA Grant and Another UL Grant vivo discussion

R2-2000144 Discuession on the MsgB Response Window for 2-step CFRA vivo discussion

R2-2000220 Handling PDCCH Order Initiated CFRA Samsung Electronics Co., Ltd discussion Rel-16 NR\_2step\_RACH-Core

R2-2000221 NDI Toggling Aspects Samsung Electronics Co., Ltd discussion Rel-16 NR\_2step\_RACH-Core

R2-2000222 Preamble Group Selection upon switching from 2 step CFRA to 2 step CBRA Samsung Electronics Co., Ltd discussion Rel-16 NR\_2step\_RACH-Core

R2-2000223 Preamble Group Selection upon switching from 2 step to 4 step RA Samsung Electronics Co., Ltd discussion Rel-16 NR\_2step\_RACH-Core

R2-2000225 Handling Preambles not associated with PRUs Samsung Electronics Co., Ltd discussion Rel-16 NR\_2step\_RACH-Core

R2-2000388 Preamble group selection and 2-step failure reporting Ericsson discussion Rel-16 NR\_2step\_RACH-Core

R2-2000389 Combined Back-off and 4-step switch Ericsson discussion Rel-16 NR\_2step\_RACH-Core

R2-2000391 Use of 2-step resources on different BWPs Ericsson discussion Rel-16 NR\_2step\_RACH-Core

R2-2000408 Issues on preamble group selection for 2-step RACH OPPO discussion Rel-16 NR\_2step\_RACH-Core

R2-2000409 Measurement gap impacts on MSGA transmission OPPO discussion Rel-16 NR\_2step\_RACH-Core

R2-2000777 Discussion on preamble group selection for 2step RACH initiated by HO Fujitsu discussion Rel-16 NR\_2step\_RACH

R2-2000812 Views on Remaining MAC Issues for 2-Step RACH CATT discussion NR\_2step\_RACH-Core

R2-2000831 Differentiating between MsgB carrying RRC and other messages Sony discussion Rel-16 NR\_2step\_RACH-Core R2-1915240

R2-2000833 msgB-RNTI ambiguity for CFRA and CBRA of 2-Step RACH Sony discussion Rel-16 NR\_2step\_RACH-Core

R2-2000852 2-step CBRA preamble group selection Nokia, Nokia Shanghai Bell discussion Rel-16 NR\_2step\_RACH-Core

R2-2000853 Need for ra-MsgASizeGroupA parameter Nokia, Nokia Shanghai Bell discussion Rel-16 NR\_2step\_RACH-Core

R2-2000951 Remaining issues on the msgA transmission Huawei, HiSilicon discussion Rel-16 NR\_2step\_RACH-Core

R2-2000952 Remaining issues on MsgB reception Huawei, HiSilicon discussion Rel-16 NR\_2step\_RACH-Core

R2-2000953 Draft LS to RAN1 on LSBs of SFN Huawei, HiSilicon discussion Rel-16 NR\_2step\_RACH-Core

R2-2000954 Open issues on MAC spec for 2-stepRACH Huawei, HiSilicon discussion Rel-16 NR\_2step\_RACH-Core

R2-2000955 MAC handling of MsgA with invalid PUSCH Huawei, HiSilicon discussion Rel-16 NR\_2step\_RACH-Core

R2-2001017 Remaining issues on 2-step CBRA Qualcomm Incorporated discussion Rel-16 NR\_2step\_RACH-Core

R2-2001125 Preamble grouping for 2-step RA NEC Telecom MODUS Ltd. discussion

R2-2001510 Further discussion on preamble group selection LG Electronics discussion NR\_2step\_RACH-Core

R2-2001512 Draft 38.321 CR on preamble group selection for 2-step RA type LG Electronics draftCR Rel-16 38.321 15.8.0 C NR\_2step\_RACH-Core

R2-2001529 Remaining issue on user plane aspects LG Electronics discussion NR\_2step\_RACH-Core

### 6.13.3 RRC stage-3 related aspects

**To be discussed over email officially kicked off during e-meeting week (as offline email discussion) and treated the second slot, Week of March 2nd:**

R2-2001917 Summary of CP open issues Ericsson

[Offline discussion 508]

**This will not be treated**

R2-2000224 PUSCH Resource Configuration for CFRA Samsung Electronics Co., Ltd discussion Rel-16 NR\_2step\_RACH-Core

R2-2000410 Remaining issues on configuration of 2-step CFRA OPPO discussion Rel-16 NR\_2step\_RACH-Core

R2-2000586 Open Issues on 2-step RACH Apple discussion Rel-16 NR\_2step\_RACH-Core

R2-2000650 Views on Remaining RRC Issues for 2-Step RACH CATT discussion NR\_2step\_RACH-Core

R2-2000778 Discussion on RO and PO configuration for CFRA Fujitsu discussion Rel-16 NR\_2step\_RACH

R2-2000998 Resource configuration for 2-step CFRA ZTE Corporation, Sanechips discussion Rel-16

### 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.

**This will not be treated**

R2-2000390 BSR over 2-step RA Ericsson discussion Rel-16 NR\_2step\_RACH-Core

R2-2000392 Beam specific 2-step RA support Ericsson discussion Rel-16 NR\_2step\_RACH-Core

R2-2000393 MsgA transmission for NR-U Ericsson discussion Rel-16 NR\_2step\_RACH-Core

R2-2000916 Discussion on the release of the PUSCH resources CMCC discussion Rel-16

R2-2000917 Remaining issues on 2-step CFRA CMCC discussion Rel-16

R2-2000926 Open issues for 2-step CFRA CMCC discussion Rel-16 Revised

R2-2000943 MSGB for CFRA Nokia, Nokia Shanghai Bell discussion Rel-16 NR\_2step\_RACH-Core

R2-2000956 Prioritized 2-step RACH Huawei, HiSilicon discussion Rel-16 NR\_2step\_RACH-Core

R2-2001032 Remaining issues on 2-step CFRA Qualcomm Incorporated discussion Rel-16 NR\_2step\_RACH-Core

R2-2001095 RAN2 aspect of UE capability for 2-step RACH Intel Corporation discussion Rel-16 NR\_2step\_RACH-Core

R2-2001102 Discussion on MsgB PDCCH Potevio Company Limited discussion Rel-16 NR\_2step\_RACH-Core

R2-2001471 Further discussion on 2-Step CFRA CMCC discussion Rel-16 R2-2000926

R2-2001514 Releasing CFRA resources for 2-step RA type LG Electronics discussion NR\_2step\_RACH-Core

R2-2001515 Draft 38.321 CR on release of CFRA resource for 2-step RA type LG Electronics draftCR Rel-16 38.321 15.8.0 B NR\_2step\_RACH-Core

R2-2001518 Draft 38.331 CR on release of CFRA resource for 2-step RA type LG Electronics draftCR Rel-16 38.331 15.8.0 NR\_2step\_RACH-Core