3GPP TSG-RAN WG2 Meeting #118 electronic [R2-2206151](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206151.zip)

Online, May, 2022

**Agenda item: 10.1**

**Source: Vice Chairman (Nokia)**

**Title: Report on LTE legacy, 71 GHz, DCCA, Multi-SIM and RAN slicing**

**Document for: Approval**

# Organizational

Rel-17 CR Instructions (pl read)

General, all correction CRs / draft CRs:

1. Rapporteurs of Rel-17 WI CRs are asked to continue their volunteer responsibility, even if the WI is closed, at least for the durations of R2 118-e, and R2 119 (later meetings TBD).
2. Unless otherwise explicitly agreed/indicated, max one Cat F CR per TS per WI shall be produced as outcome of the meeting.
3. For smaller / editorial corrections, Companies are asked to coordinate directly with Rapporteurs of Rel-17 WI CRs, rather than submitting separate correction tdocs.
4. Big open issues can be discussed with contributions with CR/TP in the appendix of the contribution, or draft CR.
5. For WI that has been declared 100% complete only essential corrections should be submitted. Other corrections may be deprioritized.

ASN.1 review CRs / draft CRs etc:

1. Documents that relate to ASN.1 review should indicate the RIL number in the document title (unless the list is unpractically long). Companies shall coordinate to avoid multiple tdocs for an issue. All NR RRC corrections shall be registered with the ASN.1 review file (RIL status to be consistent with CRs etc, to avoid double work or non-addressed issues)
2. CRs and tdocs related to RRC ASN.1 review may use the late submission deadline.
3. Rapporteurs of Rel-17 WI RRC CRs are asked to address Class 1 and Class 2 issues for their WI, at least for those RIL issues with favourable decision at ASN.1 ad-hoc meeting, and at least for RIL issues for which it is not indicated that the RIL company will provide a tdoc. RRC CR Rapporteur resolutions has priority to be treated over other tdocs if any. If RILs need discussion, an accompanying discussion document can be provided.
4. Rapporteurs of Rel-17 WI RRC CRs are further asked to address Class 0 issues for their WI to the extent reasonable (Rapporteur need to assess which issues to include). Class 0 issues are assumed to not impact protocol operation and can in principle also be fixed at a later time.
5. Rapporteurs of Rel-17 WI RRC CRs are asked to indicate which Class 1 2 RILs are intended to be addressed ASAP, and use a [Pre118-e]-discussion for this communication and for the initial informal check of the Issue resolutions etc in the CR (or in the discussion doc if applicable).
6. GEN RILs are addressed by the RRC TS rapporteur, if not otherwise stated. Multi-WI RILs can be handled by a tdoc by the submitter. AI 6.0.1 and AI 7.0.1 are for general or multi-WI issues. Multi-WI RIL issues can also just be coordinated offline among Rapporteurs regarding who shall handle it / in which WI session it is better handled (e.g. for issues impacting related WIs such as SL relay and SL enh).

Tdoc limitations (reminder)

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

- Assigned summary rapporteur input of the summary.

- Email / offline discussions outcomes by discussion rapporteur,

- WI rapporteurs input for WI planning etc,

- TS rapporteur input for TS maintenance

- Assigned Editor of Running CRs input to update the running CR and input of one tdoc to facilitate addressing of CR open issues.

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

- ASN.1 review: Max 1 tdoc per RIL issue (class 1,2) for RIL company (if there is RIL overlap or closely related RILs, companies shall coordinate to avoid multiple tdocs for one topic, including coordination with WI CR Rapporteur, who has priority for treatment). Tdoc for a RIL issue is expected if it is indicated in the RIL that a tdoc will be provided.

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

Tdoc limitations doesn’t apply to shadow / mirror CRs (Cat A).

Tdoc limitations applies to all other submitted tdocs.

Rel-17 UE capabilities

For R2 118-e, the intention is to finalize UE capabilities for Rel-17

There is no specific coordination for EUTRA UE capabilities.

For NR UE capabilities the following applies:

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

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

3: RAN2 should only implement in the CRs the features / feature groups from the RAN1 and RAN4 feature list without any FFS (no highlighted yellow, [] and/or marked as FFS/TBD). Also UE Capabilities that are dependent on such FFS features should not be implemented.

4: R2 Features and capabilities developed only in R2, are developed and corrected individually per WI, under WI-specific Agenda Items. Draft CRs (running CRs) for 38.331 and 38.306 are produced. The 306 CRs shall include an annex containing the RAN2 determined UE capabilities in the feature list format (similar to annex containing RAN2 agreements) for easy compilation into the TR38.822 in the later stage.

5. At the end of R2 118, endorsed WI specific UE capability CRs will be merged into the mega CRs, and the mega CRs will be provided to TSG RAN. Any exception to this need to be decided case by case.

**List of offline email discussions:**

**NOTE: the email discussion 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)**

**Email discussion deadlines**

**Deadline 1 (discussions for Thu online)**

* **Comment deadline, 1st phase:** Wednesday W1, 1000 UTC (for collecting views)
* **Rapporteur proposals, 1st phase:** Wednesday W1, 1400 UTC (proposed outcome)
* **Document deadline, 1st phase:** Thursday W1, 0430 UTC (discussion report)
	+ Discussion may continue to 2nd phase (using Deadline 3) based on online decisions

**Deadline 2 (discussions for Fri online):**

* **Comment deadline, 1st phase:** Thursday W1, 0900 UTC (for collecting views)
* **Rapporteur proposals, 1st phase:** Thursday W1, 1200 UTC (proposed resolution of issues)
* **Document deadline, 1st phase:** Friday W1, 0430 UTC (report, agreed CRs, final approved LS, etc.)
	+ Discussion may continue to 2nd phase (using Deadline 4) based on online decisions

**Deadline 3 (discussions for 2nd week Tue online):**

* **Comment deadline:** FridayW1, 0800 UTC (for collecting views)
* **Rapporteur proposals:** Monday W2, 0900 UTC (proposed resolution of issues)
* **Document deadline:** Tuesday W2, 0900 UTC (report or agreed CRs)
	+ Discussion may continue to 2nd phase (using Deadline 5) based on online decisions

**Deadline 4 (discussions for 2nd week Wed online):**

* **Comment deadline:** MondayW2, 1200 UTC (for collecting views)
* **Rapporteur proposals:** Tuesday W2, 1200 UTC (proposed resolution of issues)
* **Document deadline:** Tuesday W2, 1600 UTC (report or agreed CRs)
	+ No extensions to this deadline for regular discussions. Discussions handling CRs may continue to short post-meeting email (based on chair decision).

**Deadline 5 (discussions for 2nd week Thu/Fri online):**

* **Comment deadline:** Wednesday W2, 0400 UTC (for collecting views)
* **Rapporteur proposals:** Wednesday W2, 0800 UTC (proposed resolution of issues)
* **Document deadline:** Wednesday W2, 1600 UTC (report or agreed CRs)
	+ No extensions to this deadline for regular discussions. Discussions handling CRs may continue to short post-meeting email (based on chair decision).

**Deadline 6 (CR/LS approval via email):**

* **Comment deadline:** ThursdayW2, 0900 UTC (for collecting views)
* **Rapporteur proposals:** Thursday W2, 1300 UTC (proposed final document versions)
* **Document deadline:** EOM (LS and/or agreed CRs)
	+ If not agreeable, may continue to short post-meeting email (based on chair decision).

**Organizational**

* [AT118-e][200] Organizational – LTE legacy, 71 GHz, DCCA, Multi-SIM and RAN slicing (RAN2 VC)

Scope:

* + - Share plans for the meetings and list of ongoing email discussions for the sessions
		- Share meetings notes and agreements for review and endorsement
		- Flag LSs and in-principle agreed CRs for discussion

      Intended outcome (for LS discussion):

* + - General information sharing about the sessions

      Deadline for providing comments to LSs:

* + - Deadline: Deadline 3

**LTE legacy (started immediately at meeting start)**

* [AT118-e][201][LTE] LTE legacy CRs (Samsung)

 Scope: 1st phase: Discuss LTE CRs marked for this discussion (under AI 4.5 and 7.4). 2nd phase: Provided updated CRs based on online agreements.

 Intended outcome: 1st phase: Discussion report in [R2-2206161](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206161.zip) (for 1st week online discussion). 2nd phase: Agreeable CRs (by proponents) based on online agreements.

 Deadline: Deadline 1 (1st week online) / Deadline 5 (CR finalization)

**LTE legacy (started after 1st week online session)**

* [AT118-e][202][LTE] Final LTE QoE correction CRs (Google)

 Scope: Discuss CRs based on the principle of [R2-2206003](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206003.zip) (i.e. avoid setup actions at fullConfig procedural text). Should try to avoid double release. If issues cannot be resolved, will fall back to approach in [R2-2205731](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205731.zip).

 Intended outcome: Agreeable CRs.

 Deadline: Deadline 3 (resolving which way to go) / Deadline 5 (CR finalization)

**LTE Rel-17 (started after 1st week online session)**

* [AT118-e][203][LTE] Rel-17 ASN.1 general corrections (Samsung)

 Scope: Capture final status of all RIL review issues (including WI-specific ones) and provide revision of CR [R2-2205208](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205208.zip) capturing comments and resolution of E806. Can also provide revision of class0 WI-specific issues based on WI rapporteur input to the discussion.

 Intended outcome: Agreeable CR in [R2-2206190](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206190.zip), RIL resolution in [R2-2206360](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206360.zip) and class0 resolutions in [R2-2206361](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206361.zip).

 Deadline: Deadline 5 (CR finalization)

**NR Rel-17 DCCA (started immediately at meeting start)**

* [AT118-e][220][DCCA] LTE and NR RRC corrections for DCCA enhancements (Huawei)

      Scope: Discuss LTE and NR RRC corrections for R17 DCCA and include corrections based on online decisions.

 Intended outcome: Agreeable CR in [R2-2206162](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206162.zip) (NR RRC) and [R2-2206163](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206163.zip) (LTE RRC)

 Deadline: Deadline 5

* [AT118-e][221][DCCA] Stage-2 CRs for DCCA enhancements (ZTE)

      Scope: Discuss 37.340 corrections for R17 DCCA with [R2-2204546](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204546.zip) as starting point. Also include any Stage-2 corrections based on online decisions.

 Intended outcome: Agreeable CR in [R2-2206164](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206164.zip).

 Deadline: Deadline 5

* [AT118-e][222][DCCA] MAC/PDCP corrections for DCCA enhancements (Nokia)

      Scope: Phase 1: Discuss MAC and PDCP corrections for R17 DCCA marked for this discussion. Also include any MAC/PDCP corrections based on online decisions.
Phase 2: Discuss MAC CR based on online decisions.

 Intended outcome: Discussion report CR in [R2-2206165](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206165.zip).

 Deadline: Deadline 3 (Phase 1) / Deadline 6 (Phase 2, can continue to post-meeting email)

* [AT118-e][223][DCCA] BFD corrections for DCCA enhancements (Fujitsu)

      Scope: Discuss BFD corrections for R17 DCCA marked for this discussion.

 Intended outcome: Discussion report in [R2-2206166](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206166.zip).

 Deadline: Deadline 3

* [AT118-e][224][DCCA] RRC for SCG deactivation (Huawei)

      Scope: Discuss RRC corrections for SCG deactivation marked for this discussion.

 Intended outcome: Discussion report in [R2-2206167](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206167.zip).

 Deadline: Deadline 2

* [AT118-e][225][DCCA] RRC for CPAC (Ericsson)

      Scope: Discuss RRC corrections for CPAC marked for this discussion.

 Intended outcome: Discussion report in [R2-2206168](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206168.zip).

 Deadline: Deadline 2

**NR Rel-17 DCCA (started after 2nd week Wednesday)**

* [AT118-e][226][DCCA] Corrections for TRS-based Scell activation (Samsung)

      Scope: Provide MAC and RRC CRs for TRS-based Scell activation based on online decisions.

 Intended outcome: Agreeable MAC CR in [R2-2206369](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206369.zip) and RRC CR in [R2-2206370](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206370.zip).

 Deadline: Deadline 6 / Post-meeting email

**NR Rel-17 Multi-SIM (started immediately at meeting start)**

* [AT118-e][230][MUSIM] NR RRC corrections for MUSIM (vivo)

      Scope: Discuss NR RRC corrections for MUSIM and include corrections based on online decisions.

 Intended outcome: Agreeable CR in [R2-2206169](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206169.zip).

 Deadline: Deadline 5

* [AT118-e][231][MUSIM] LTE RRC corrections for MUSIM (Samsung)

      Scope: Discuss LTE RRC corrections for MUSIM and include corrections based on online decisions.

 Intended outcome: Agreeable CR in [R2-2206170](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206170.zip).

 Deadline: Deadline 5

* [AT118-e][232][MUSIM] Corrections to MUSIM gap configuration aspects (Qualcomm)

      Scope: Discuss corrections for MUSIM gap configurations to determine which are agreaable. Should focus on essential corrections.

 Intended outcome: Discussion report in [R2-2206171](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206171.zip).

 Deadline: Deadline 4

**NR Rel-17 Multi-SIM (only started after first online session)**

* [AT118-e][233][MUSIM] UE capability corrections for MUSIM (Intel)

 Scope: Provide final input on the MUSIM capabilities for the UE capability mega-CR based on online decisions.

 Intended outcome: Discussion report in [R2-2206362](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206362.zip) and draft CRs (to be merged to the UE capability mega-CRs) in [R2-2206182](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206182.zip) (38.306) and [R2-2206183](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206183.zip) (38.331).

 Deadline: Deadline 5

* [AT118-e][234][MUSIM] UE behavior for NAS-based busy indication in RRC\_INACTIVE (Samsung)

      Scope: Discuss how to capture NOTE about INACTIVE UE behaviour if it rejects RAN paging in 38.331 and come up with CR for this.

 Intended outcome: Discussion report in [R2-2206363](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206363.zip) and agreeable CR in [R2-2206169](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206169.zip).

 Deadline: Deadline 5

**NR Rel-17 RAN Slicing (only started after first online session)**

* [AT118-e][240][Slicing] Finalizing RRC for RAN slicing (Huawei)

      Scope: Finalize RRC CR for RAN slicing based on meeting decisions.

 Intended outcome: Discussion report in [R2-2206173](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206173.zip) and agreeable CR in [R2-2206172](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206172.zip).

 Deadline: Deadline 5

* [AT118-e][241][Slicing] Finalizing Stage-2 for RAN slicing (Nokia)

      Scope: Finalize Stage-2 CR for RAN slicing based on meeting decisions.

 Intended outcome: Discussion report in [R2-2206184](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206184.zip) and agreeable CR in [R2-2205491](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205491.zip).

 Deadline: Deadline 5

* [AT118-e][242][Slicing] Finalizing IDLE mode for RAN slicing (NEC)

      Scope: Discuss CRs for TS38.304 and provide final CR based on meeting decisions.

 Intended outcome: Discussion report [R2-2206185](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206185.zip) and agreeable CR in [R2-2206174](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206174.zip).

 Deadline: Deadline 5

* [AT118-e][243][Slicing] Finalizing MAC for slice-specific RACH (Samsung)

      Scope: Discuss CRs for TS38.321 and determine which are agreeable. Can provide final CR based on meeting decisions.

 Intended outcome: Discussion report [R2-2206186](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206186.zip) and agreeable CR in [R2-2206175](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206175.zip).

 Deadline: Deadline 3 (report) / Deadline 5 (CR)

**NR Extension to 71 GHz (started immediately at meeting start)**

* [AT118-e][210][71 GHz] RRC corrections (Ericsson)

 Scope: Discuss RRC RIL for 71 GHz and provide proposals for resolution

 Intended outcome: Discussion report in [R2-2206176](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206176.zip) (for online discussion) and final RRC CR in [R2-2206177](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206177.zip).

 Deadline: Deadline 3

* [AT118-e][211][71 GHz] Stage-2 corrections for 71 GHz (Qualcomm)

 Scope: Discuss Stage-2 corrections for 71 GHz and provide proposals for resolution

      Scope: Finalize Stage-2 CR for RAN slicing based on meeting decisions.

 Intended outcome: Agreeable Stage-2 CR in [R2-2206178](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206178.zip).

 Deadline: Deadline 5

* [AT118-e][212][71 GHz] 71 GHz UE capability corrections (Intel)

 Scope: Discuss UE capability corrections for 71 GHz and provide proposals for resolution

 Intended outcome: Discussion report in [R2-2206179](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206179.zip) (for online discussion) and final draft CRs in [R2-2206180](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206180.zip) and [R2-2206181](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206181.zip).

 Deadline: Deadline 3

**Summary documents**

**Dates and deadlines – Technical Meeting**

April 25th, 2359 UTC **General Tdoc Submission Deadline**. Also, Kick off, summaries.

 **RRC RIL deadline (ASN.1 review)**. Deadline after which no new RIL issue shall be added to RRC ASN.1 review file(s).

April 29th 1600 UTC **Late Tdoc Submission Deadline** Tdoc number allocation deadline. Applicable for Summaries, and if needed, for tdocs dependent on the outcome of ASN.1 ad-hoc meeting, e.g. applicable for RRC CRs by RRC CR rapporteurs (and associated paper if any).

May 2nd – 6th **Inactive Period**. Exemption: If required for some CR, During the inactive period WI RRC CR rapporteurs may perform best effort check with RIL submitters/interested by Pre118-e discussions. Note that participation is best effort, and comments can be provided after e-meeting start as well.

May 9th 0700 UTC **e-Meeting Start** (by email), Week 1
Rapporteurs in non-favourable time zones may kick off AT meeting offline / email discussions before meeting start (at most 12h before). It is assumed that participants starts paying attention to offline / email discussions after e-meeting start.

May 13th 1800 Local Time **Weekend break**, Suspend decision making in email discussions (= no deadlines etc) from May 13th 1000 UTC. It should be possible for a delegate to take the weekend off, rejoin and not miss decisions.

May 16th 0800 Local Time Resume after weekend. Resume decision making in email discussions, Week 2.

May 20th 1000 UTC **e-Meeting Stop**, no more technical comments for AT-meeting email discussions. Decision confirmations announced within 24h. Session notes for email checking.

May 27th **Deadline Short Post118-e email discussions**. Short Post email discussions can be started before the meeting has ended.

**Web Conference Schedule, WEEK 1**

Note that this schedule is indicative and can change. After Week 1 the schedule for Week 2 will be updated.

**Web Conference Schedule**

Note that this schedule is indicative and can change. After Week 1 the schedule for Week 2 will be updated.

**WEEK 1:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Time ZoneUTC** | **Web Conference R2 - Main** | **Web Conference R2 - BO1** | **Web Conference R2 - BO2** |
| **Monday** |  |  |  |
| 12:30-13:15 | NR17 IoT NTN (Johan) | NR17 RAN Slicing (Tero)-6.8.1: [R2-2204526](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204526.zip) (SA2 LS), [R2-2205082](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205082.zip) (RIL handling)- 6.8.2: [R2-2205032](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205032.zip) (TA for slice groups), [R2-2205495](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205495.zip) (RRCRelease aspects) IF time allows:- 6.8.2: [R2-2205124](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205124.zip) (equal priority handling)- 6.8.4: [R2-2205546](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205546.zip) (UE capabilities) | NR17 SL enh (Kyeongin) |
| 13:15-14:00 | NR17 IoT NTN (Johan) | NR17 Small Data Enh (Diana) | NR17 SL enh (Kyeongin) |
| 14:00-14:45 | NR17 feMIMO (Johan) | NR17 Small Data Enh (Diana) | NR17 SL Relay (Nathan) |
| 14:45-15:30 | NR17 MGE (Johan) | NR17 RACH indication / partitioning (Diana) | NR17 SL Relay (Nathan) |
| **Tuesday** |  |  |  |
| 12:30-13:15 | NR17 feMIMO (Johan) | NR17 SONMDT (HuNan) | LTE17 IoT (Brian) |
| 13:15-14:00 | NR17 eIAB (Johan) | NR17 IIOT (Diana) | NR17 NTN (Sergio) |
| 14:00-14:45 | NR17 ePowSav (Johan) | NR17 Pos (Nathan) | NR17 NTN (Sergio) |
| 14:45-15:30 | TBD | NR17 Pos (Nathan) | NR17 RedCap (Sergio) |
| **Wednesd** |  |  |  |
| 04:00-05:00 | NR17 QoE (Johan) | LTE All releases, including LTE Rel-17 ASN.1 review (Tero)- 4.5: [R2-2205731](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205731.zip)/ [R2-2205733](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205733.zip)/ [R2-2205741](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205741.zip), [R2-2205544](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205544.zip) (outcome and subsequent discussion thereof for [Post117-e][209])- 7.0.1: [R2-2205208](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205208.zip)/ [R2-2205209](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205209.zip)/ [R2-2205210](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205210.zip) (ASN.1 review issues), [R2-2205866](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205866.zip) (avoiding old SI-scheduling list) | NR17 Pos or SL Relay (Nathan) |
| **Thursday** |  |  |  |
| 04:00-05:00 | NR17 MBS (Johan) | NR17 Multi-SIM (Tero)- 6.3.1: [R2-2204542](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204542.zip) (36.304 CR), [R2-2204442](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204442.zip) (LS from SA2), [R2-2204481](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204481.zip) (LS from RAN4)- 6.3.5: [R2-2205547](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205547.zip) (need for additional capabilities) - 6.3.2: [R2-2204787](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204787.zip)/ [R2-2204788](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204788.zip) (AS-NAS interactions), [R2-2205762](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205762.zip) (paging cause handling for INACTIVE)IF time allows:NR17 RAN Slicing (Tero) - 6.8.2: [R2-2205124](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205124.zip) (equal priority handling)- 6.8.4: [R2-2205546](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205546.zip) (UE capabilities) | NR17 RedCap (Sergio)NR17 CovEnh (Sergio) |
| **Friday** |  |  |  |
| 04:00-05:00 | NR17 MBS (Johan) | NR17 DCCA (Tero)- 6.2.1: [R2-2204435](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204435.zip), [R2-2204479](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204479.zip), [R2-2204493](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204493.zip) (LSs from other groups)- 6.2.2: [R2-2205932](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205932.zip), [R2-2205060](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205060.zip) (SCG deactivation timing)- 6.2.2: [R2-2206167](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206167.zip) (Report of [AT118-e][224])- 6.2.3: [R2-2205524](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205524.zip) (CPAC/CHO coexistence, CPAC leftovers)- 6.2.3: [R2-2206168](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206168.zip) (Report of [AT118-e][225]) | EUTRA legacy IoT (Emre/Brian) |

**Web Conference Schedule, WEEK 2**

Note that this schedule is indicative and can change. After Week 1 the schedule for Week 2 will be updated.

|  |  |  |  |
| --- | --- | --- | --- |
| **Time ZoneUTC** | **Web Conference R2 - Main** | **Web Conference R2 - BO1** | **Web Conference R2 - BO2** |
| **Monday** |  |  |  |
| 12:30-13:15 | NR15NR16 [014] other?MBS [031] | NR17 SONMDT (HuNan) |  NR17 Pos (Nathan) |
| 13:15-14:00 | NR15NR16 [016]NR17 ASN.1 review 6.0.1:[023], [R2-2205419](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205419.zip), Other? | NR17 IIOT (Diana) | NR17 Pos (Nathan) |
| 14:00-14:45 | IoT NTN 7.2.4 UE Capabilities Continuation | NR17 RACH indication / partitioning (Diana) | CB Nathan- Relay CBs |
| 14:45-15:30 | NR17 TEI (Johan) | CB DianaNR17 SData – UP  | CB Nathan- Relay CBs |
| **Tuesday** |  |  |  |
| 12:30-13:15 | MINT [047]CB MGE Johan[059], [060], [061] | CB Sergio (NR NTN) | NR17 SL enh (Kyeongin)6.15.2.1 (remaining issues)6.15.2.2 |
| 13:15-14:00 | CB MBS Johan[030] remaining proposals, CBs[033] UE cap CBs | CB Sergio (NR NTN) | NR17 SL enh (Kyeongin)6.15.2.36.15.2.4 |
| 14:00-14:45 | CB IoT NTN Johan[057], [050]([048], [049], [051]) if needed.  | NR17 up to 71 GHz (Tero)- 6.20.3: [R2-2205555](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205555.zip) (LBT impacts)- 6.20.4: [R2-2206179](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206179.zip) (report of [AT118-e][212])- 6.20.1: [R2-2206176](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206176.zip) (report of [AT118-e][210] (including [R2-2205554](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205554.zip) (TDRA) and [R2-2205051](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205051.zip)/[R2-2204872](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204872.zip) (overheating UAI)) | CB DianaNR17 SData – remaining UP and CP discussion |
| 14:45-15:30 | CB ePowSav Johan[071], [072], [073], [074] | CB Tero (RAN slicing)RAN slicing - 6.8.2: [R2-2205495](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205495.zip) (RRCRelease aspects) - 6.8.2: [R2-2205124](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205124.zip) (equal priority handling)- 6.8.4: [R2-2205546](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205546.zip) (UE capabilities)IF time allows:- 6.8.2/6.8.3: Aspects of [242] or [243] that require online discussion (based on discussion rapporteur requests) | CB Diana NR17 SData Continuation15:10 [approx] CB NR NTN (Sergio) |
| **Wednesday** |  |  |  |
| 12:30-13:15 | NR17 feMIMO[054], [075], [076], [077] | CB Brian [301]. [302] (TBD if needed)  | CB HuNan  |
| 13:15-14:00 | CB JohaneIAB [063], [064], [065], [066] | CB RedCap (Sergio)- 6.12.2.2: offline [102]: [R2-2206218](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206218.zip), offline [109]: [R2-2206415](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206415.zip), offline [115]: [R2-2206213](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206213.zip)- 6.12.2.1: offline [105]: [R2-2206414](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206414.zip), [R2-2205512](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205512.zip) | CB Nathan- Positioning CBs |
| 14:00-14:45 | CB Johan6.23 UDC [038]QoE [078] | CB RedCap (Sergio)- 6.12.3: offline [116]: [R2-2206214](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206214.zip)- 6.12.4: offline [110]: [R2-2206219](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206219.zip)CB Cov Enh (Sergio)- 6.19.2: offline [103]: [R2-2206200](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206200.zip) | CB Nathan - Positioning CBs |
| 14:45-15:30 | CB JohanMGE [062]MBS [034] if needed | CB Tero (DCCA)NR17 DCCA- 6.2.4: [R2-2204978](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204978.zip) (use of R15 MAC CE with TRS-based SCell activation), [R2-2205505](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205505.zip) (reaction to RAN1 LS [R2-2204435](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204435.zip))- 6.2.5: [R2-2205425](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205425.zip), [R2-2205934](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205934.zip) (corrections to CPAC capabilities)- 6.2.2: [R2-2206165](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206165.zip) (Report of [AT118-e][222])- 6.2.2: [R2-2206166](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206166.zip) (Report of [AT118-e][223]) | CB Kyeongin6.15.2.4 (remaining issues)6.15.2.5, 6.15.2.6 |
| **Thursday** |  |  |  |
| 04:00-05:00 | CB Johan7.2 IoT NTN [058] if needed6.9 ePowSav [072] if neededMBS [029] | CB Sergio | CB Kyeongin |
| **Friday** |  |  |  |
| 04:00-05:00 | CB JohanTEI17 [081], [082], [083] | CB Tero (NR17 MUSIM, Slicing, DCCA)NR17 Multi-SIM- 6.3.3: [R2-2206171](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206171.zip) (Report of [AT118-e][232], only P14, P15, P13, P8 and P16)) - 6.3.2: [R2-2206363](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206363.zip) (Report of [AT118-e][234], only P3)- 6.3.5: [R2-2206362](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206362.zip) (Report of [AT118-e][233])- 6.3.2: [R2-2205216](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205216.zip) (MUSIM Stage-2 corrections)NR17 RAN slicing - 6.8.2: [R2-2205124](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205124.zip) (equal priority handling)- 6.8.x: Issues from [240] - [243] that require additional online discussionNR17 DCCAIF time allows, may start early (see next slot) | CB Nathan |
| 05:00–05:30 |  | CB Tero (DCCA, 71 GHz)NR17 DCCA- 6.2.1: [R2-2206368](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206368.zip) (miscellaneous issues from [220])IF time allows:- 6.2.3: [R2-2205665](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205665.zip) (target cell ID outside the CPAC container)NR17 71 GHz- 6.20.1: Remaining parts of [R2-2206176](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206176.zip) (report of [AT118-e][210] - 6.20.2: [R2-2205191](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205191.zip) (E049)  |  |

# 4 EUTRA Rel-16 and earlier

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

## 4.5 Other LTE corrections Rel-16 and earlier

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

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

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

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

Including outcome of [Post117-e][209][QoE] Correction to application layer measurement and reporting for LTE (Google)

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

By Web Conf (1st Week Wednesday) (3+1)

Report of [Post117-e][209][QoE] Correction to application layer measurement and reporting for LTE (Google)

[R2-2205731](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205731.zip) Correction to application layer measurement and reporting Google Inc., Qualcomm CR Rel-15 36.331 15.17.0 4775 1 F LTE\_QMC\_Streaming-Core [R2-2203661](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2203661.zip)

- Intel explains that their concern was that normally full configuration section only talks about release, not setup of configurations. Thinks the setup part is already covered by other sections, that's why their CR doesn't include that. Also thinks that since we first release everything and then take actions, they wanted to make it clear when the serviceType is released (i.e. only at the end). QC thinks having setup is a matter of taste and we do have other examples of "setup"-like actions. Most things are UE-internal matters and we don't list quite everything anyway (e.g. what happens to RNTI, variables, etc.).

- Huawei thinks most of the changes are the same and the only difference is bullet 2.

- Intel thinks that since setup is covered by other text, it's not needed. Why should it be there? Also the point of fullConfig is to bring UE to a known configuration. Google clarifies their CR splits the setup to fullConfig and otherConfig parts. Thinks it's important to let upper layers know QoE config has been changed. Ericsson wonders what happens if we remove the setup part from fullConfig? Wouldn't that also work? QC thinks the added part is not a copy of the otherConfig.

* [202] Revised in [R2-2206187](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206187.zip)

[R2-2205733](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205733.zip) Correction to application layer measurement and reporting Google Inc., Qualcomm CR Rel-16 36.331 16.8.0 4776 1 A LTE\_QMC\_Streaming-Core [R2-2203662](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2203662.zip)

* [202] Revised in [R2-2206188](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206188.zip)

[R2-2205741](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205741.zip) Correction to application layer measurement and reporting Google Inc., Qualcomm CR Rel-17 36.331 17.0.0 4806 - A LTE\_QMC\_Streaming-Core

* [202] Revised in [R2-2206189](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206189.zip)

[R2-2205544](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205544.zip) Discussion on application layer measurement and reporting for LTE during full configuration Intel Corporation discussion Rel-17 LTE\_QMC\_Streaming-Core

*Observation 1: QoE measurement continuity cannot be guaranteed during full configuration in all cases, as the UE application layer always stops QoE measurement upon receiving the release of QoE configuration from AS layer due to full configuration, no matter RRCConnectionReconfiguration message include any measConfigAppLayer or not.*

*Observation 2: Even QoE configuration in measConfigAppLayerContainer is the same before and after full configuration, it is not clear whether UE’s application layer will restart QoE measurement or continue the existing QoE configuration.*

*Observation 3: As measConfigAppLayerContainer is mandatory present, AS layer has to discard it without forwarding to the application layer for the same servieType to allow application layer to continue measurements after full configuration.*

*Observation 4: To support QoE measurement continuity in application layer during full configuration, serviceType should not be released during the initial processing of full configuration.*

*Proposal 1: If measConfigAppLayer in RRCConnectionReconfiguration message includes the same serviceType as the one before full configuration, UE AS layer should also discard measConfigAppLayerContainer.*

*Proposal 2: Agree the corresponding CR in* [*R2-2205545*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205545.zip)*.*

* Noted (covered by discussion on CRs)

[R2-2206003](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206003.zip) Correction to application layer measurement and reporting for LTE during full configuration Intel Corporation CR Rel-15 36.331 15.17.0 4816 - F LTE\_QMC\_Streaming-Core

- Google thinks this CR doesn't explicitly detail not releasing the serviceType.

- QC thinks it's not clear what UE does since the container has been discarded. Should at least add "if not discarded". Intel would be OK with that. Google thinks this requires implementation to check why it would be not discarded.

- QC thinks also the release section requires some modifications to avoid double release. Intel thinks this doesn't happen: If it's released, network doesn't include the release anyway.

* Discuss this approach over [202]

[R2-2205545](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205545.zip) Correction to application layer measurement and reporting for LTE during full configuration Intel Corporation CR Rel-17 36.331 17.0.0 4802 - A LTE\_QMC\_Streaming-Core Late

* Offline 202 (Google) to draft CRs based on principle of 6003. Should try to address all technical issues (e.g. avoid double release). If that is not possible, we will go for the approach in [R2-2205731](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205731.zip).

Email discussions ([202])

* [AT118-e][202][LTE] Final LTE QoE correction CRs (Google)

 Scope: Discuss CRs based on the principle of [R2-2206003](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206003.zip) (i.e. avoid setup actions at fullConfig procedural text). Should try to avoid double release. If issues cannot be resolved, will fall back to approach in [R2-2205731](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205731.zip).

 Intended outcome: Agreeable CRs.

 Deadline: Deadline 3 (resolving which way to go) / Deadline 5 (CR finalization)

By Email [201] (1+4+1)

RRC editorial corrections:

[R2-2205199](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205199.zip) Minor changes collected by Rapporteur Samsung CR Rel-16 36.331 16.8.0 4790 - F LTE\_euCA-Core

* [201] 2: Prepare Rel-17 LTE RRC Rapporteur CR (i.e. shadow CR).
* [201] Revised in [R2-220XXXX](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-220XXXX.zip)

[R2-220XXXX](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-220XXXX.zip) Minor changes collected by Rapporteur Samsung CR Rel-16 36.331 16.8.0 4790 1 F LTE\_euCA-Core

[R2-220XXXX](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-220XXXX.zip) Minor changes collected by Rapporteur Samsung CR Rel-16 36.331 17.0.0 XXXX - F LTE\_feMob-Core, LTE\_euCA-Core

Corrections to dormant SCell state (Rel-15 euCA):

[R2-2205200](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205200.zip) Clarifications on CQI-ReportPeriodicScell Samsung discussion LTE\_euCA-Core

[R2-2205201](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205201.zip) Correction on the CQI-ReportPeriodicScell Samsung CR Rel-15 36.331 15.17.0 4791 - F LTE\_euCA-Core

* [201] Postponed

[R2-2205202](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205202.zip) Correction on the CQI-ReportPeriodicScell Samsung CR Rel-16 36.331 16.8.0 4792 - A LTE\_euCA-Core

* [201] Postponed

[R2-2205203](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205203.zip) Correction on the CQI-ReportPeriodicScell Samsung CR Rel-17 36.331 17.0.0 4793 - A LTE\_euCA-Core

* [201] Postponed

LTE CHO correction:

[R2-2205427](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205427.zip) Correction on evaluation of conditional reconfiguration CATT CR Rel-16 36.331 16.8.0 4800 - F LTE\_feMob-Core

* [201] Changes in this CR ([R2-2205427](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205427.zip)) is merged into the LTE RRC Rapporteur CRs for Rel-16/17.
* [201] Merged to

Email discussions ([201])

* [AT118-e][201][LTE] LTE legacy CRs (Samsung)

 Scope: 1st phase: Discuss LTE CRs marked for this discussion (under AI 4.5 and 7.4). 2nd phase: Provided updated CRs based on online agreements.

 Intended outcome: 1st phase: Discussion report in [R2-2206161](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206161.zip) (for 1st week online discussion). 2nd phase: Agreeable CRs (by proponents) based on online agreements.

 Deadline: Deadline 1 (1st week online) / Deadline 5 (CR finalization)

By Email: Outcome of [201] (1)

*Report of [201]:*

[R2-2206161](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206161.zip) Report of [AT118-e][201][LTE] LTE legacy CRs (Samsung) Samsung discussion Rel-16 LTE\_euCA-Core, LTE\_feMob-Core Late

* [201] 1: Revise the Rel-16 LTE RRC Rapporteur CR ([R2-2205199](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205199.zip)) based on the feedback in this offline discussion.
* [201] 2: Prepare Rel-17 LTE RRC Rapporteur CR (i.e. shadow CR).
* [201] 5: Changes in this CR ([R2-2205427](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205427.zip)) is merged into the LTE RRC Rapporteur CRs for Rel-16/17.
* [201] 3: RAN2 thinks the new capability would be needed to support different configuration for multiple CSI subframe sets.
* [201] Send LS to RAN1 to ask for clarification on how to handle multiple CSI subframe sets with dormant SCell reporting.
* [201] The CRs [R2-2205201](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205201.zip), [R2-2205202](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205202.zip), [R2-2205203](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205203.zip) are postponed pending the RAN1 LS reply.

[R2-2206372](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206372.zip) LS on the CQI periodic reporting for Dormant SCell state RAN1 LS out Rel-15 LTE\_euCA-Core To:RAN1

* [201] Approved

# 6 NR Rel-17

## 6.2 MR DC/CA further enhancements

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

Tdoc Limitation: 8 tdocs

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

Contributions should illustrate the Stage-3 details of the proposals (e.g. in an Annex containing TP against the running CRs). If a contribution does not provide TP, it may be deprioritized.

WI has been declared 100% complete

### 6.2.1 Organizational

Including LSs and any rapporteur inputs (e.g. from ASN.1 ad-hoc meeting).

By Web Conf (1st Week Friday) (3)

[R2-2204435](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204435.zip) Reply LS on RAN2 agreements for TRS-based Scell activation (R1-2202706; contact: Huawei) RAN1 LS in Rel-17 LTE\_NR\_DC\_enh2 To:RAN2

* Handled via contributions in AI 6.2.4

[R2-2204479](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204479.zip) LS reply on UE behaviour for deactivated SCG and value range for measCycle (R4-2207019; contact: Ericsson) RAN4 LS in Rel-17 LTE\_NR\_DC\_enh2-Core To:RAN2

* Handled via email discussion [220]

[R2-2204493](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204493.zip) Reply LS on CPAC (R3-222754; contact: Lenovo) RAN3 LS in Rel-17 LTE\_NR\_DC\_enh2-Core To:RAN2

* Handled via contributions in AI 6.2.3

By Email [220] (2+2+1+1)

*RRC corrections: RIL for LTE and NR RRC*

[R2-2205930](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205930.zip) Issue list for 36.331 Huawei, HiSilicon discussion Rel-17 LTE\_NR\_DC\_enh2-Core Late

[R2-2205931](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205931.zip) Issue list for 38.331 Huawei, HiSilicon discussion Rel-17 LTE\_NR\_DC\_enh2-Core Late

*WI rapporteur CRs to 36.331 and 38.331:*

[R2-2205936](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205936.zip) Corrections on further MRDC enhancements Huawei, HiSilicon CR Rel-17 36.331 17.0.0 4813 - F LTE\_NR\_DC\_enh2-Core Late

[R2-2205937](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205937.zip) Corrections on further MRDC enhancements Huawei, HiSilicon CR Rel-17 38.331 17.0.0 3137 - F LTE\_NR\_DC\_enh2-Core Late

*Report of [Pre118-e][203]:*

[R2-2206142](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206142.zip) Summary of [Pre118-e][203][DCCA] 38331 36331 CRs and rapporteur resolutions (Huawei) Huawei, HiSilicon discussion Rel-17 LTE\_NR\_DC\_enh2-Core

*Related to RAN4 LS* [*R2-2204479*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204479.zip)*:*

[R2-2205796](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205796.zip) [Z012] Value range for measCyclePSCell Ericsson, ZTE Corporation discussion LTE\_NR\_DC\_enh2-Core

By Email [221] (1)

*Rapporteur CR to 37.340:*

[R2-2204546](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204546.zip) Corrections on TS 37.340 for DCCA enhancements ZTE Corporation, Sanechips, CATT CR Rel-17 37.340 17.0.0 0310 - F LTE\_NR\_DC\_enh2-Core

*(moved from 6.2.3)*

By Web Conf (2nd Week Wednesday) (1)

*WI rapporteur CR to 38.300:*

[R2-2205925](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205925.zip) Introduction of further MRDC enhancements Huawei, HiSilicon CR Rel-17 38.300 17.0.0 0362 2 B LTE\_NR\_DC\_enh2-Core [R2-2204014](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204014.zip)

* Agreed

Email discussions ([220], [221])

* [AT118-e][220][DCCA] LTE and NR RRC corrections for DCCA enhancements (Huawei)

      Scope: Discuss LTE and NR RRC corrections for R17 DCCA and include corrections based on online decisions.

 Intended outcome: Agreeable CR in [R2-2206162](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206162.zip) (NR RRC) and [R2-2206163](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206163.zip) (LTE RRC)

 Deadline: Deadline 5

* [AT118-e][221][DCCA] Stage-2 CRs for DCCA enhancements (ZTE)

      Scope: Discuss 37.340 corrections for R17 DCCA with [R2-2204546](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204546.zip) as starting point. Also include any Stage-2 corrections based on online decisions.

 Intended outcome: Agreeable CR in [R2-2206164](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206164.zip).

 Deadline: Deadline 5

By Email: Outcome of [220], [221] (2)

*[220] outcome CRs:*

[R2-2206162](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206162.zip) Corrections on further MRDC enhancements Huawei, HiSilicon CR Rel-17 36.331 17.0.0 4813 1 F LTE\_NR\_DC\_enh2-Core [R2-2205936](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205936.zip) Late

[R2-2206163](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206163.zip) Corrections on further MRDC enhancements Huawei, HiSilicon CR Rel-17 38.331 17.0.0 3137 1 F LTE\_NR\_DC\_enh2-Core [R2-2205937](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205937.zip) Late

**2nd week Wed**

- Huawei reports there are some issues with the baseline CR. There are also some different understanding on Rel-16 CPC behaviour.

* CBF: DCCA RRC CR clarifications in [R2-2206368](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206368.zip).

By Web Conf (2nd Week Friday) (1)

[R2-2206368](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206368.zip) Miscellaneous RRC issues in [220] Huawei, HiSilicon discussion Rel-17 LTE\_NR\_DC\_enh2-Core

*E023*

*Proposal 1: Confirm the rapporteur's understanding in P1 of* [*R2-2206368*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206368.zip) *on which statement applies to which VarConditionalReconfig variable.*

*Proposal 2: Capture in 5.3.5.13.1 that:*

*- there are two independent conditionalReconfiguration, one associated with the MCG, the other with the SCG*

*- same thing for VarConditionalReconfig (one associated with the MCG, one associated with the SCG)*

*- for conditional reconfiguration removal, addition/modification, evaluation, the variable used is the one of:*

*- MCG if the conditionalReconfiguration is included in the RRCReconfiguration message received via SRB1*

*- SCG if the conditionalReconfiguration is included in the RRCReconfiguration message received via SRB3 or included within a RRCReconfiguration message embedded in a RRCReconfiguration message received via SRB1*

*Proposal 3: For each statement that must be executed for both VarConditionalReconfig variables, capture that it is to be executed for both VarConditionalReconfig variables.*

*Proposal 4: Capture in 5.3.5.13.1 that unless specified otherwise, only the MCG variable is considered.*

*E022*

*Proposal 5: RAN2 decides the UE autonomous actions at SCG release, either*

*1) the UE clears CPC in SCG variable (like Rel-16)*

*2) the UE clears CPC in all variables but does not clear any measId/MO (up to the network)*

*3) the UE clears CPC in all variables and measId/MO not used for CHO*

*E024*

*Observation 1: In Rel-16, the UE releases CHO at PSCell change if "CPC was configured", i.e. never.*

*Observation 2: In Rel-17, the UE releases CHO at PSCell change if CPA or CPC is configured, i.e. it depends whether the SN has configured Rel-16 CPC.*

*Observation 3: The MN does not know whether the SN has configured Rel-16 CPC.*

*Proposal 6: Confirm whether the current specification is ok for release of CHO at PSCell change, i.e. if and only if CPC or CPA is configured (as later change would most likely be NBC).*

*[221] outcome CR:*

[R2-2206164](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206164.zip) Corrections on TS 37.340 for DCCA enhancements ZTE Corporation, Sanechips, CATT CR Rel-17 37.340 17.0.0 0310 1 F LTE\_NR\_DC\_enh2-Core [R2-2204546](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204546.zip)

**2nd week Wed**

- ZTE indicates this has not gotten lot of comments. More checking would be welcome.

### 6.2.2 Efficient activation / deactivation mechanism for one SCG and SCells

Including essential corrections to of SCG activation/deactivation. Proposals that do not provide Stage-3 details will not be treated.

By Web Conf (1st Week Friday) (2)

*(De)Activation indication to lower layers:*

[R2-2205932](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205932.zip) [38.331 - H061] Performing SCG activation/deactivation at the right step Huawei, HiSilicon discussion Rel-17 LTE\_NR\_DC\_enh2-Core Late

*Observation 1: according to TS 38.331 v17.0.0, MAC could be notified that the SCG is to be* *activated (or to be deactivated) while the SCG (re)configuration in the same message is not processed yet.*

*Observation 2: according to TS 38.331 v17.0.0, an indication of SCG activation is sent to MAC while processing the MN message, MAC may indicate that RACH is needed and this indication is handled while processing the SN message.*

*Observation 3: according to TS 38.331 v17.0.0, RACH cannot be triggered for SCG activation is there is no SN message, while RAN2 never decided this.*

*While the above text was about NR-DC, the situation is the same for EN-DC.*

*Proposal: Adopt the corrections as in the TPs below.*

[R2-2205060](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205060.zip) Discussion on SCG activation/deactivation processing vivo discussion Rel-17 LTE\_NR\_DC\_enh2-Core

*Proposal 1: upon receiving the SCG (de)activation indication, the UE firstly consider the SCG is (de)activated before processing the SCG configuration, and performs SCG (de)activation after processing the SCG configuration.*

*Proposal 2: Considering the TPs provided in the appendix.*

LGE agree that the processing of "activation indication" should be after SCG is processed. Ericsson agrees. LGE prefers RACH to be initiated in RRC only. Vodafone agrees. Nokia have no strong preference between both. Samsung agrees. CATT prefers indication from RRC to MAC but can agree the other solution too.

* Processing of scg-State is moved after SCG is processed.
* RACH is only initiated in 38.331 (unless an issue is found with that).

[R2-2205424](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205424.zip) Discussion on SCG Activation and Deactivation Indication to Lower Layer CATT discussion Rel-17 LTE\_NR\_DC\_enh2-Core

By Email [224] (4+3)

*RRC corrections:*

[R2-2205800](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205800.zip) [E035] Define the content of TCI-Info Ericsson discussion LTE\_NR\_DC\_enh2-Core

[R2-2204621](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204621.zip) (TP for CR to TS 38.331) Efficient SCG deactivation/activation Qualcomm Incorporated discussion Rel-17

[R2-2205246](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205246.zip) 38.331 corrections on deactivated SCG Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.0.0 3058 - F LTE\_NR\_DC\_enh2-Core

[R2-2205247](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205247.zip) Correction to deactivated SCG UL SRB3 handling Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.0.0 3059 - F LTE\_NR\_DC\_enh2-Core

[R2-2204754](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204754.zip) Discussion on SCG activation Spreadtrum Communications discussion Rel-17

*UAI on SCG state preference:*

[R2-2205798](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205798.zip) [E130] Cause values for UAI indicating preference for SCG deactivation Ericsson discussion LTE\_NR\_DC\_enh2-Core

[R2-2205799](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205799.zip) [E131] Handling of UAI for deactivated SCG Ericsson discussion LTE\_NR\_DC\_enh2-Core

[R2-2205062](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205062.zip) Discussion on whether cause value is needed in the SCG deactivation preference reporting vivo discussion Rel-17 LTE\_NR\_DC\_enh2-Core

By Email [221] (3)

*Stage-2 corrections, 37.340:*

[R2-2205245](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205245.zip) 37.340 corrections regarding deactivated SCG Nokia, Nokia Shanghai Bell CR Rel-17 37.340 17.0.0 0314 - F LTE\_NR\_DC\_enh2-Core

[R2-2205367](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205367.zip) Corrections on eDCCA vivo CR Rel-17 37.340 17.0.0 0316 - F LTE\_NR\_DC\_enh2-Core

*(moved from 6.2.2)*

[R2-2205926](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205926.zip) Corrections for SCG (de)activation Huawei, HiSilicon draftCR Rel-17 37.340 17.0.0 F LTE\_NR\_DC\_enh2-Core

[R2-2205259](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205259.zip) Network behaviour at/while SCG deactivation Fujitsu discussion Rel-17 LTE\_NR\_DC\_enh2-Core

By Email [222] (6+2+3)

*MAC corrections:*

[R2-2205248](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205248.zip) 38.321 corrections on deactivated SCG Nokia, Nokia Shanghai Bell CR Rel-17 38.321 17.0.0 1264 - F LTE\_NR\_DC\_enh2-Core

* [222] Revised in [R2-2206562](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206562.zip)

[R2-2205928](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205928.zip) Discussion on the Editor notes of SCG(de)activation in 38.321 Huawei, HiSilicon discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2205929](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205929.zip) Correction on 38.321 Huawei, HiSilicon CR Rel-17 38.321 17.0.0 1291 - F LTE\_NR\_DC\_enh2-Core

[R2-2204956](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204956.zip) MAC related issues upon SCG activation and deactivation Lenovo discussion Rel-17

[R2-2205058](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205058.zip) Discussion on MAC remaining issue vivo discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2205057](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205057.zip) MAC correction on eDCCA vivo CR Rel-17 38.321 17.0.0 1250 - F LTE\_NR\_DC\_enh2-Core

*(moved from 6.2.1)*

*UP aspects: Configured Grant*

[R2-2205275](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205275.zip) Remaining issues for configured grant Type 1 in deactivated SCG Sharp discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2205276](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205276.zip) CR on 38.321 for Remaining issues for configured grant Type 1 in deactivated SCG Sharp CR Rel-17 38.321 17.0.0 1268 - B LTE\_NR\_DC\_enh2-Core

*PDCP aspects:*

[R2-2205061](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205061.zip) Discussion on PDCP duplication handling while SCG is deactivated vivo discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2205423](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205423.zip) Discussion on PDCP Duplication for SCG Deactivation CATT discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2205260](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205260.zip) Remaining issues on UL data arrival for SCG Fujitsu discussion Rel-17 LTE\_NR\_DC\_enh2-Core [R2-2202282](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2202282.zip)

By Email [223] (10)

*BFD-related aspects:*

[R2-2204910](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204910.zip) [F001] Beam failure detection upon SCG deactivation Fujitsu discussion Rel-17 LTE\_NR\_DC\_enh2-Core

*Proposal 1: RAN2 is asked to discuss if beam failure detection is performed for each BFD-RS set of the PSCell or not when the SCG is deactivated.*

*Proposal 2: If beam failure detection is not performed for each BFD-RS set of the PSCell when the SCG is deactivated, apply the TP to TS 38.331 in Annex.*

*Proposal 3: If beam failure detection is not performed for each BFD-RS set of the PSCell when the SCG is deactivated, RAN2 is asked to discuss the draft CR [5] to TS 38.321.*

[R2-2204909](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204909.zip) Beam failure detection upon SCG deactivation Fujitsu draftCR Rel-17 38.321 17.0.0 F LTE\_NR\_DC\_enh2-Core

[R2-2205273](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205273.zip) Remaining issues for BFD indication in deactivated SCG Sharp discussion Rel-17 LTE\_NR\_DC\_enh2-Core

*Proposal 1 RAN2 should modify the BFD indication of the current MAC CR in order not to initiate Random Access on PSCell in deactivated SCG.*

*Proposal 2 RAN2 agrees CR [3] as CR of BFD indication for 38.321.*

[R2-2205274](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205274.zip) CR on 38.321 for Remaining issues for BFD indication in deactivated SCG Sharp CR Rel-17 38.321 17.0.0 1267 - F LTE\_NR\_DC\_enh2-Core

[R2-2205280](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205280.zip) [J006] Correction of BFD procedure Sharp discussion Rel-17 LTE\_NR\_DC\_enh2-Core

*Proposal 1. RAN2 should discuss how to capture the mechanism of BFD stop/ resume.*

*Proposal 2. RRC should indicate to stop BFD upon receiving the indication from lower layer.*

*Proposal 3. RRC should indicate to resume BFD upon reconfiguration BFD RS while SCG is deactivated.*

*Proposal 4. BFD resumption should include the process of BFI\_COUNTER resetting and BFD restarting, and the resetting should be performed before the restarting.*

*Proposal 5. RAN2 should agree with attached TP.*

[R2-2205422](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205422.zip) Discussion on Beam Failure Information for Deactivated SCG CATT discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2205797](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205797.zip) [E129] Stop/resume BFD at beam failure for deactivated SCG Ericsson discussion LTE\_NR\_DC\_enh2-Core

[R2-2205277](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205277.zip) RACH-less SCG activation by SCG activation command with BFD RS change Sharp discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2205278](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205278.zip) CR on 38.331 for RACH-less SCG activation by SCG activation command with BFD RS change Sharp CR Rel-17 38.331 17.0.0 3062 - F LTE\_NR\_DC\_enh2-Core

[R2-2205279](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205279.zip) CR on 38.321 for RACH-less SCG activation by SCG activation command with BFD RS change Sharp CR Rel-17 38.321 17.0.0 1269 - F LTE\_NR\_DC\_enh2-Core

Not Treated (no Stage-3 details included) (1)

[R2-2205949](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205949.zip) On RACH resources for SCG activation InterDigital discussion Rel-17 LTE\_NR\_DC\_enh2-Core

Email discussion [222], [223]

* [AT118-e][222][DCCA] MAC/PDCP corrections for DCCA enhancements (Nokia)

      Scope: Phase 1: Discuss MAC and PDCP corrections for R17 DCCA marked for this discussion. Also include any MAC/PDCP corrections based on online decisions.
Phase 2: Discuss MAC CR based on online decisions.

 Intended outcome: Phase 1: Discussion report CR in [R2-2206165](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206165.zip), MAC CR in [R2-2206562](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206562.zip).
Phase 2: Final MAC CR in [R2-2206371](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206371.zip).

 Deadline: Deadline 3 (Phase 1) / Deadline 6 (Phase 2, can continue to post-meeting email)

* [AT118-e][223][DCCA] BFD corrections for DCCA enhancements (Fujitsu)

      Scope: Discuss BFD corrections for R17 DCCA marked for this discussion.

 Intended outcome: Discussion report in [R2-2206166](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206166.zip).

 Deadline: Deadline 3

By Web Conf (2nd Week Wednesday): Outcome of [222], [223] (2)

*CR from [222]:*

[R2-2206562](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206562.zip) 38.321 corrections on deactivated SCG Nokia, Nokia Shanghai Bell CR Rel-17 38.321 17.0.0 1264 1 F LTE\_NR\_DC\_enh2-Core [R2-2205248](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205248.zip)

* Continue CR finalization via [222] after online discussion.

*Report of [222]:*

[R2-2206165](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206165.zip) Report of [AT118-e][222][DCCA] MAC/PDCP corrections for DCCA enhancements (Nokia) Nokia discussion Rel-17 LTE\_NR\_DC\_enh2-Core

* 1: Pursue MAC CRs with using existing MAC reset structure
* 2: Agree with change 8 and develope MAC CR so that in case BFD is not configured for the deactivated SCG all timers are stopped and TATs are considered expired. If BFD configured, all timers stopped except BFD timer and TATs.
* 3: Agree with intention of change 9 and pursue MAC CR with principle that SCG deactivation is captured as a trigger in SCell deactivation section (5.9) which implicitly handles BFI\_COUNTERs
* 4: Keep existing handling of Bj and remove editor’s note.
* 5: Pursue changes from [R2-2205929](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205929.zip) with the use of “PSCell is deactivated” in 5.29 instead of “SCG is deactivated”. Can discuss if this is needed with P10.
* 6: Do not pursue change 5 from [R2-2205248](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205248.zip) and pursue changes 3&6.
* 7: There is no need to distinguish that there was BFR while SCG was deactivated.
* 8: Check during CR implementation if there is need to move Random Access procedure initiation after the SCG activation.
* 9: Pursue MAC CR so that majority of BWP handling for deactivated SCG is in RRC field descriptions – ensure with coordination between RRC/MAC CRs that there are no problems left.
* 10: Pursue with MAC CR according to [R2-2204956](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204956.zip) including parts related to configured downlink/uplink grants type 2 and type 1.
* 13: Do not pursue in release 17 MAC CE to activate SCG.
* 11: Pursue to capture in stage-2 somewhere in line with following text “The network always keeps the SCG activated while PDCP duplication is activated for SCG RLC entities associated with a PDCP transmitting entity”. To be handled in [221]

P5

- Ericsson this this is partly contradictory with P10.

P12

- LGE thinks PDCP doesn't know the SCG status.

* P12 is not considered now. Can be rediscussed in next meeting with justification why this is needed.

*Proposal 12: Discuss whether to have an indication to RRC from PDCP about UL data arrival on an SCG bearer while the SCG is deactivated.*

*Report of [223]:*

[R2-2206166](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206166.zip) Report of [AT118-e][223][DCCA] BFD corrections for DCCA enhancements (Fujitsu) Fujitsu discussion Rel-17 LTE\_NR\_DC\_enh2-Core

*(a) Proposals for not pursuing/capturing CRs/TPs:*

<per TRP BFD at SCG deactivation>

* 2: We will not pursue the changes in [R2-2204909](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204909.zip).
* 3: We will not pursue the changes in [R2-2204910](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204910.zip).

<BFD stop/resumption>

* 6: Do not capture BFD stop/resumption in TS 38.331 for now. If there is a reason to do so later, can rediscuss.
* 7: We will not pursue the changes in [R2-2205280](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205280.zip).

<Initiation of RA procedure upon SCG activation>

* 10: We will not pursue the changes in [R2-2205278](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205278.zip) and in [R2-2205279](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205279.zip).

<BFR information>

* 11: We will not pursue the changes in [R2-2205422](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205422.zip).

P6

- Ericsson thinks P6 was split evenly. Huawei thinks the indication needs to be handled in MAC somehow. We haven't seen the TP for that. Fujitsu clarifies that MAC is better place to capture than RRC based on discussion.

- Nokia is not sure what is the problem: If we do nothing, there is no problem. Huawei thinks that if RRC indicates something to MAC, MAC needs to know what to do. But we have no such TP at the moment so MAC does nothing with the indication. Is worried we are adding something that is not clear. Nokia thinks BFD is in PHY and not MAC. Ericsson thinks MAC counts the BFI but we agreed that BFI from PHY is not necessary when SCG is deactivated, so UE can stop that when SCG is deactivated.

- QC thinks RRC needs to indicate BFD resumption to MAC. Ericsson thinks this is not needed. Huawei clarifies that MAC has no actions when SCG is deactivated even if PHY indicates BFD. So lower layers can just stop measuring. Thinks we could just have NOTE in MAC to say that UE is allowed to not measure.

- Apple thinks RRC needs to be involved: If UE has deactivated SCG with BFD on mTRP, something is needed in 38.331

*(b) Proposals for requesting further discussions*

*<Per TRP BFD at SCG deactivation>*

*Proposal 1: Choose one from the following options:*

*- Option 2: beam failure detection on each BFD-RS set of PSCell configured with two BFD-RS sets can be performed while the SCG is deactivated*

*- Option 3: SCG can only be deactivated with bfd-and-RLM configured to true if the PSCell is configured with a single BFD-RS set*

*Proposal 4: RAN2 further discusses whether specification change is necessary based on the selected option in Proposal 1.*

*Proposal 5: If Option 2 is selected in Proposal 1, it is proposed to confirm that:*

*The same parameter “bfd-and-RLM” should be used to indicate whether the UE performs RLM and BFD for PSCell with/without 2 BFD-RS sets.*

- Apple thinks UE can preserve configuration but only does BFD on serving PSCell. Huawei thinks this is new behaviour since UE does something that it doesn't do normally.

- vivo is fine with option 3 but thinks option 2 also requires nothing. If we find issue, can discuss later. Intel thinks current specs supports option 2. UE just follows MAC specification and only declares BFD if both fail. Ericsson, Nokia, QC agrees. CATT thinks option 2 requires more discussion. Thinks option 3 has less issues.

- Apple wonders how using BFD-RS on non-serving TRP works with deactivated SCG?

* No changes to specification for BFD-RS use with deactivated SCG. We will not optimize interworking of two BFD-RS sets and deactivated SCG in Rel-17. Can discuss if we capture this assumption in specification (e.g. RRC, Stage-2) in the next meeting.

*<Initiation of RA when SCG is deactivated>*

*Proposal 8: The problem raised in* [*R2-2205273*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205273.zip) *should be fixed.*

* 1 RAN2 should modify the BFD indication in the current MAC CR in order not to initiate Random Access on PSCell in deactivated SCG. Discuss how to capture this in specification.

*Proposal 9: RAN2 discusses how to fix the issue raised in* [*R2-2205273*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205273.zip) *based on the CR in* [*R2-2205274*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205274.zip)*. This discussion is covered in [AT118-e][222].*

Email discussion [224]

* [AT118-e][224][DCCA] RRC for SCG deactivation (Huawei)

      Scope: Discuss RRC corrections for SCG deactivation marked for this discussion.

 Intended outcome: Discussion report in [R2-2206167](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206167.zip).

 Deadline: Deadline 2

Proposal 1: TCI-Info is not replaced by a container for a MAC PDU.

* TCI-Info is not replaced by a container for a MAC PDU

Proposal 2: No cause value is introduced in UAI to say why the UE prefers the SCG to be deactivated (unless there is consensus at a later meeting on a backward compatible CR to add a cause value).

Qualcomm wonders whetehr the question is only about the cause value. Huawei confirms. InterDigital wonders whether it is possible to include overheating information, delay budget reporting. Huawei clarifies this discussion is only about adding a new cause value in the indication that the UE prefers the SCG to be deactivated.

* No agreement to include a new field to indicate cause value in the UE indication that the UE prefers the SCG to be deactivated.

Proposal 3: No correction is done to send the UL data indication via SRB1 now. A clarification could be re-discussed later.

CATT asks what a clarification could be. Huawei explains it depends whether company think the specification is sufficiently clear. Qualcomm think nothing is needed. Apple agrees. LGE agrees.

Proposal 4: Confirm that measurement reporting for SN-configured measurements while the SCG is deactivated is sent via SRB1 (i.e. like in TS 38.331 v17.0.0, no change needed).

* Confirm that measurement reporting for SN-configured measurements while the SCG is deactivated is sent via SRB1 (i.e. like in TS 38.331 v17.0.0, no change needed).

Proposal 5: Support direct SCG SCell activation (i.e. including sCellState), even if reconfigurationWithSync is not included for the SCG and the SCG SCell was configured before SCG activation.

Vodafone wonders about the scenario for this. Nokia assumes this has no impact to MAC and is very simple. Huawei thinks this is only that the network can anyway to that by removing and adding the SCell, but this seems not very efficient to do it this way. Qualcomm, Futurewei and LGE support the proposal.

* Support direct SCG SCell activation (i.e. including sCellState), even if reconfigurationWithSync is not included for the SCG and the SCG SCell was configured before SCG activation

Proposal 6: Confirm that the UE won't send UAI via SRB3 for the SCG while the SCG is deactivated.

Apple supports that the UE can send UAI for the SCG via SRB1 and this is relayed to the SN, while the UAI for UL data indication is to the MN. Intel agrees. Qualcomm wonders what UAI could be sent while the SCG is deactivated apart from uplink data indication. Apple thinks it is like when the SCG is activated.

Huawei clarifies that everyone seems to agree that UAI message can only be sent on SRB1 when the SCG is deactivated but there are diverging views whether assistance information for the SCG ("UL data indication" can be sent anyway) can be sent.

* Confirm that the UAI message can only be sent on SRB1 when the SCG is deactivated.
* Further discuss whether the UE can send assistance information for the SCG while the SCG is deactivated (besides "UL data indication" that can be sent anyway).

Proposal 7: Further discuss whether the UE can send UAI via SRB1 for the SCG when the SCG is deactivated.

LGE thinks it is not suitable to suspend the UE in the specification. LGE thinks the network can deactivate the UAI for SCG explicitly.

Ericsson wonders whether it is clear for everyone that there is no use for the UE to send UAI for the SCG while the SCG is deactivated. Qualcomm agrees. CATT agrees but don't want that the network has to deconfigure the UAI explicitly. Would support specifying a UE behaviour but the text needs to be improved. InterDigital thinks there is no use to provide information to the SN since the MN needs to trigger the activation.

By Web Conf (1st Week Friday): Outcome of [224] (1)

*Report of [224]:*

[R2-2206167](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206167.zip) Report of [AT118-e][224][DCCA] RRC for SCG deactivation (Huawei) Huawei, HiSilicon discussion Rel-17 LTE\_NR\_DC\_enh2-Core

### 6.2.3 Conditional PSCell change / addition

Including essential corrections to of CPAC. Proposals that do not provide Stage-3 details will not be treated.

By Web Conf (1st Week Friday) (1)

*CPAC procedures and CPAC/CHO coexistence (potentially requiring RAN3 interaction):*

[R2-2205524](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205524.zip) Resolving incomplete CPAC issues Nokia, Nokia Shanghai Bell discussion Rel-17 LTE\_NR\_DC\_enh2-Core

*Observation 1: The purpose and targeted cell group for CHO, CPA and CPC is different. The coexistence of these solutions is justified.*

*Observation 2: In Release 16 the coexistence of CHO and CPC was not supported due to the lack of time. No technical issues were raised.*

*Observation 3: UE has a single variable VarConditionalReconfig which is now supposed to store all conditional reconfigurations (i.e. CHO, CPA, MN-initiated CPC, SN-initiated CPC).*

*Observation 4: Release 17 supports Conditional Handover with SCG configuration to enable DC setup after PCell change is completed.*

*Observation 5: CHO with SCG configuration works fine as long as MN is aware of any changes to SCG configuration which may impact the prepared CHO + SCG reconfiguration.*

*Observation 6: MN is not aware of any SCG configuration changes pursued by SN, e.g. using SRB3.*

*Proposal 1: Confirm the working assumption and agree the following: when one conditional reconfiguration is executed, the other conditional reconfigurations are released.*

*Proposal 2: Confirm the working assumption and agree the following: MN indicates (via CG-ConfigInfo) how many conditional reconfigurations Source SN is allowed to initiate.*

*Proposal 3: Introduce a new parameter in CondReconfigToAddMod in order to differentiate MN-initiated and SN-initiated conditional reconfigurations.*

*Proposal 4: RAN2 is asked to confirm the need to have the indication from SN to MN regarding SCG Reconfiguration the MN may be not aware of (e.g. SRB3-based). A corresponding LS should be sent to RAN3.*

P3: Intel wonders if UE can differentiate by existing fields in conditional reconfiguration. ZTE think the UE can differentiate.

ZTE want to confirm which type of conditional configuration can be configured since some RAN3 signalling can be needed. Qualcomm want know which types of conditional reconfigurations can exist. Ericsson clarifies that the different variables are for MN-format or SN-format. Interdigital this is also for the UE to know where to send the complete message. Samsung thinks this helps avoiding conflict of IDs of conditional reconfigurations. Nokia agrees. Ericsson think the coordination of max number is signalled via another parameter.
ZTE think that if we support R16 CPC + CHO/Rel-17 CPC, we don't need the variable.

* Confirm the working assumption and agree the following: when one conditional reconfiguration is executed, the other conditional reconfigurations are released.
* Confirm the working assumption and agree the following: MN indicates (via CG-ConfigInfo) how many conditional reconfigurations Source SN is allowed to initiate.

[R2-2205164](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205164.zip) Further consideration on CPAC/CHO coexistence ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_DC\_enh2-Core

*Proposal 1: RAN2 support the following CHO/CPAC coexistence cases in Rel-17:*

*− R17 MN initiated CPC + R17 SN initiated CPC*

*− CHO + R17 CPC*

*− CHO + R17 CPA*

*Proposal 2: It is up to the NW implementation to ensure the non-coexistence of CHO/R17 CPAC and R16 CPC.*

*Proposal 3: RAN2 agree to have MN-SN coordination for maximum number of conditional reconfigurations allowed for each node. MN can indicate (via CG-ConfigInfo) how many conditional reconfigurations SN is allowed to have.*

*Proposal 4: RAN2 agree the draft CRs of CHO/CPAC coexistence on stage-2 spec* [*R2-2205165*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205165.zip)*, NR RRC spec* [*R2-2205166*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205166.zip)*, and LTE RRC spec* [*R2-2205167*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205167.zip)*.*

[R2-2204903](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204903.zip) Clarifications on CPAC procedures NEC discussion Rel-17 LTE\_NR\_DC\_enh2-Core

*Proposal 1: RAN2 to confirm that the MN cannot trigger to update/modify previous CPAC configurations in RRC for SN-initiated inter-SN CPC, unless the source SN requests to do so.*

*Proposal 2: RAN2 to ask RAN3 to clarify their intention that the MN can update/modify previous CPAC configurations for SN-initiated inter-SN CPC and confirm there is no expected RAN2 impact.*

*Proposal 3: RAN2 to confirm that the MN may trigger to cancel all prepared PSCells at target SN for SN-initiated inter-SN CPC without the request from the source SN.*

[R2-2204623](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204623.zip) (TP for CR to TS 38.331) Conditional PSCell change/addition Qualcomm Incorporated discussion Rel-17

*Proposal 1. Confirm the following Working Assumption from the last RAN2 #117-e meeting, proposed for all coexistence between conditional configurations (i.e., Rel-16/Rel-17 CHO/CPAC coexistence):*

*Proposal 2. Coexistence between Rel-16 CPC and Rel-17 SN initiated Inter-SN CPC should be supported.*

*Proposal 3. In case coexistence between Rel-16 CPC and Rel-17 SN initiated Inter-SN CPC is supported, upon Rel-16 CPC execution, source SN transmits an indication to MN so that MN can initiate SN release procedures with the other target SNs. This indication can be transmitted in the CG-Config IE.*

*Proposal 4. Coexistence between CHO and Rel-16 CPC should be supported.*

*Proposal 5. Coexistence between CHO and Rel-17 CPC (MN or SN initiated Inter-SN CPC) or Rel-17 CPA should be supported.*

*Proposal 6. In case coexistence between CHO and Rel-16 CPC is supported, upon Rel-16 CPC execution, source SN transmits an indication to MN so that MN can initiate CHO release with the target MNs. This indication can be transmitted in the CG-Config IE.*

*Proposal 7. There are two alternative ways for handling the coexistence between MN initiated Inter-SN CPC and SN initiated CPC (Rel-16 or Rel-17 CPC). RAN2 to decide between the alternatives.*

*Alt1: Coexistence of MN initiated Inter-SN CPC and SN initiated CPC (Rel-16 or Rel-17 CPC) is not supported.*

*Alt2: Coexistence of MN initiated Inter-SN CPC and SN initiated CPC (Rel-16 or Rel-17 CPC) is supported, and MN-source SN coordination is defined for the maximum number of PSCells each node is allowed to configure.*

*Proposal 8. If Alt2 of Proposal 8 is adopted, the following are the alternative ways to achieve MN-source SN coordination on the maximum number of PSCells each node is allowed to configure:*

* MN can indicate (via CG-ConfigInfo IE) how many conditional reconfigurations SN is allowed to have.*

* There is a static split on the number of CPC configurations each node (MN or source SN) is allowed to initiate. This static split can be configured by OAM, for example. This way is preferable since no MN-source SN signalling is required to support this.*

[R2-2205426](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205426.zip) Discussion on the Remaining Issues of CPAC CATT discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2204801](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204801.zip) Discussion RRCReconfiguration for CPC and CHO vivo discussion Rel-17 LTE\_NR\_DC\_enh2-Core

*CRs for the CPAC/CHO coexistence:*

[R2-2205527](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205527.zip) Rel-17 CPAC corrections to 37.340 Nokia, Nokia Shanghai Bell CR Rel-17 37.340 17.0.0 0319 - F LTE\_NR\_DC\_enh2-Core

[R2-2205525](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205525.zip) Rel-17 CPAC corrections to 38.331 Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.0.0 3098 - F LTE\_NR\_DC\_enh2-Core

[R2-2205526](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205526.zip) Rel-17 CPAC corrections to 36.331 Nokia, Nokia Shanghai Bell CR Rel-17 36.331 17.0.0 4801 - F LTE\_NR\_DC\_enh2-Core

[R2-2205831](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205831.zip) Corrections to 37.340 for CPAC and CHO co-existence InterDigital CR Rel-17 37.340 17.0.0 0321 - F LTE\_NR\_DC\_enh2-Core

[R2-2205165](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205165.zip) Clarification on CPAC/CHO coexistence ZTE Corporation, Sanechips draftCR Rel-17 37.340 17.0.0 LTE\_NR\_DC\_enh2-Core

[R2-2205166](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205166.zip) Clarification on CPAC/CHO coexistence ZTE Corporation, Sanechips draftCR Rel-17 38.331 17.0.0 LTE\_NR\_DC\_enh2-Core

[R2-2205167](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205167.zip) Clarification on CPAC/CHO coexistence ZTE Corporation, Sanechips draftCR Rel-17 36.331 17.0.0 LTE\_NR\_DC\_enh2-Core

By Web Conf (2nd Week CB) (1)

*Including target cell ID outside CHO container:*

[R2-2205665](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205665.zip) Introducing target cell ID to CPAC RRC Apple discussion Rel-17 LTE\_NR\_DC\_enh2-Core

*Proposal 1: Explicitly indicates the physical cell ID associated with each set of condExecutionCond/ condExecutionCondSN and condRRCReconfig in NR.*

*Proposal 2: Explicitly indicates the physical cell ID associated with each set of triggerCondition/ triggerConditionSN and condReconfigurationToApply in LTE.*

By Email [221] (4)

*Stage-2 corrections to 37.340 on CPAC:*

[R2-2204957](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204957.zip) Miscellaneous corrections to 37.340 CPAC Lenovo discussion Rel-17

[R2-2204802](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204802.zip) Correction on full configuration in TS 37.340 vivo CR Rel-17 37.340 17.0.0 0312 - F LTE\_NR\_DC\_enh2-Core

[R2-2205446](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205446.zip) Correction CR for MR-DC Ericsson CR Rel-17 37.340 17.0.0 0320 - F LTE\_NR\_DC\_enh2-Core

[R2-2205927](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205927.zip) Corrections for CPAC Huawei, HiSilicon draftCR Rel-17 37.340 17.0.0 F LTE\_NR\_DC\_enh2-Core

By Email [225] (11)

*RIL-related contributions for CPAC:*

[R2-2205169](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205169.zip) [Z007] Correction to CondReconfigToAddModList ZTE Corporation, Sanechips draftCR Rel-17 38.331 17.0.0 LTE\_NR\_DC\_enh2-Core

[R2-2205170](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205170.zip) [Z003] Correction to CondReconfigurationToAddModList ZTE Corporation, Sanechips draftCR Rel-17 36.331 17.0.0 LTE\_NR\_DC\_enh2-Core

[R2-2205171](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205171.zip) [Z003][Z004] Discussion on applicable events for execution conditions ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2205168](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205168.zip) [E022] [V190] Discussion on conditional reconfiguration removal ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2205444](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205444.zip) Miscellaneous CPAC corrections related to RIL E022, E023, E024 and E029 Ericsson discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2205485](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205485.zip) [E023] Introduction of UE variable for SN configured conditional Reconfigurations Samsung R&D Institute UK discussion

[R2-2205445](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205445.zip) CPA and DAPS handover correction of RIL E050 Ericsson discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2206116](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206116.zip) Miscellaneous CPAC corrections related to RIL E022, E023, E024 and E029 Ericsson discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2206139](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206139.zip) [38.331 - H110] Applicable cell for a conditional reconfiguration Huawei, HiSilicon discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2206140](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206140.zip) [38.331 - H111] Handling of conditional configurations Huawei, HiSilicon discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2206141](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206141.zip) [38.331 - H067] Update of candidate target cell and configuration Huawei, HiSilicon discussion Rel-17 LTE\_NR\_DC\_enh2-Core

Email discussion [225]

* [AT118-e][225][DCCA] RRC for CPAC (Ericsson)

      Scope: Discuss RRC corrections for CPAC marked for this discussion.

 Intended outcome: Discussion report in [R2-2206168](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206168.zip).

 Deadline: Deadline 2

*Proposal 1: TCI-Info is not replaced by a container for a MAC PDU.*

*Proposal 2: No cause value is introduced in UAI to say why the UE prefers the SCG to be deactivated (unless there is consensus at a later meeting on a backward compatible CR to add a cause value).*

*Proposal 3: No correction is done to send the UL data indication via SRB1 now. A clarification could be re-discussed later.*

*Proposal 4: Confirm that measurement reporting for SN-configured measurements while the SCG is deactivated is sent via SRB1 (i.e. like in TS 38.331 v17.0.0, no change needed).*

*Proposal 5: Support direct SCG SCell activation (i.e. including sCellState), even if reconfigurationWithSync is not included for the SCG and the SCG SCell was configured before SCG activation.*

*Proposal 6: Confirm that the UE won't send UAI via SRB3 for the SCG while the SCG is deactivated.*

*Proposal 7: Further discuss whether the UE can send UAI via SRB1 for the SCG when the SCG is deactivated.*

By Web Conf (1st Week Friday): Outcome of [225] (1)

*Report of [225]:*

[R2-2206168](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206168.zip) Report of [AT118-e][225][DCCA] RRC for CPAC (Ericsson) Ericsson discussion Rel-17 LTE\_NR\_DC\_enh2-Core Late

* Revised in [R2-2206365](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206365.zip) to account for missing comments from Samsung

[R2-2206365](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206365.zip) Report of [AT118-e][225][DCCA] RRC for CPAC (Ericsson) Ericsson discussion Rel-17 LTE\_NR\_DC\_enh2-Core Late

P1: ZTE thinks this is not needed in every occurrence.

* Correct RIL E022 and use [R2-2206116](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206116.zip) as baseline for the correction (add one more line with the text “remove all the entries within VarConditionalReconfiguration as specified in TS 36.331 [10] clause 5.3.5.9.6, if any;”)
* Correct RIL E024 and use [R2-2206116](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206116.zip) as baseline for the correction (clarify that both MCG and SCG measurement configurations for conditional reconfigurations are released.).
* Correct RIL E023 and use [R2-2206116](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206116.zip) as baseline for the correction.
* CPA and DAPS are not supported together. The TP for proposal 3 in [R2-2205445](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205445.zip) is used baseline for the correction.
* RIL H110 (cannot use MCG reconfigurationWithSync for CPC) is not corrected. The issue is solved by network implementation.
* RIL Z003 (presence of triggercondition(SN)) is not corrected.
* RIL Z004 (using normal events for execution condition) is not pursued.
* Correct RIL V197 (replicate a not for NR-DC).
* Correct issue (not perform measurements for conditional events not used as execution condition) RIL E029. The TP in [R2-2206116](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206116.zip) is used as baseline.
* RIL H067 (remove ToReleaseList in INM) is not corrected, i.e. keep specification unchanged.
* RIL E021 (remove max nuber of CPC candidates in INM) is not corrected.
* RIL Z007 (presence of condExecutionCond(SCG)) is not corrected.

### 6.2.4 Temporary RS for SCell activation

Including essential corrections to of temporary RS for SCell activation. Proposals that do not provide Stage-3 details will not be treated.

By Web Conf (2nd Week Wednesday) (1)

Can R15 MAC CE be used when TRS are configured for SCell activation?

[R2-2204978](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204978.zip) Leftover issues for TRS based SCell activation Samsung discussion Rel-17 LTE\_NR\_DC\_enh2-Core

*Proposal 1. Rel-15 SCell activation/deactivation MAC CE is not used if a SCell is configured with TRS.*

- Nokia wonders why we would not allow using legacy MAC CE? Samsung clarifies it's not clear which TRS is used. Thinks if TRS are configured, they would always be used. Samsung thinks we would then need to clarify what happens. Apple supports P1.

- Intel thinks if R15 MAC CE is used, no TRS is activated. LGE agrees.

- Huawei wonders how does the MN knows about SCG SCells? does MN know SN has configured those?

- LGE thinks this is the same as PDCP duplication in R16. Nokia thinks that is different since the number of legs changed.

* 1. If Rel-15 SCell activation/deactivation MAC CE is used when SCell is configured with TRS, UE just activates SCells as in legacy (i.e. no TRS). Can discuss if this requires clarification in RRC/MAC. If this causes problem, we can still restrict.

*Proposal 2. To support TRS based SCell activation by RRC message.*

- QC thinks this might require changes to delay timeline. Apple thinks we can stick to MAC CE.

* 2. Do not support TRS based SCell activation by RRC message in Rel-17. Can discuss if this requires clarification in RRC/MAC.

- Huawei thinks P3 contradicts agreement 1. Nokia thinks SCell can be activated by RRC but TRS is not activated, so UE follows legacy timeline.

* 3. Direct SCell activation via RRC doesn't suppport TRS-based SCell activation in Rel-17 (i.e. activation SCell via sCellState doesn't trigger TRS).
* Discuss details in discussion [226]

[R2-2205059](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205059.zip) Discussion on Temporary RS activation for fast SCell activation vivo discussion Rel-17 LTE\_NR\_DC\_enh2-Core

*Observation 1 There is no functionality impact if an R15 SCell Activation/Deactivation MAC CE or an R17 Enhanced SCell Activation/Deactivation MAC CE is received by the UE after the transmitted TRS burst(s) indicated by a former R17 Enhanced SCell Activation/Deactivation MAC CE.*

*Observation 2 There is no functionality impact if an R15 SCell Activation/Deactivation MAC CE is received by the UE before the transmitted TRS burst(s) indicated by a former R17 Enhanced SCell Activation/Deactivation MAC CE.*

*Observation 3 When the network does not use the TRS for fast SCell activation, R15 MAC CE can be used for SCell activation/deactivation to save some bits.*

*Observation 4 Clarification is needed for the case when the UE receives a second R17 MAC CE before the TRS burst(s) indicated by a first R17 MAC CE where the second R17 MAC CE indicates Ci=1 & “TRS ID for Ci”=0 for the SCell Ci.*

*Proposal 1 Either R15 SCell Activation/Deactivation MAC CE or R17 Enhanced SCell Activation/Deactivation MAC CE can be used for SCell activation/deactivation when TRS configuration is configured for any SCell, i.e. no spec impact for the legacy R15 SCell Activation/Deactivation MAC CE.*

*Proposal 2 Adopt the TP in the Annex to keep aligned comprehension for the network and the UE when the UE receives a second R17 MAC CE before the TRS burst(s) indicated by a first R17 MAC CE where the second R17 MAC CE indicates Ci=1 & “TRS ID for Ci”=0 for the SCell Ci.*

By Web Conf (2nd Week Wednesday) (1)

AP CSI-RS triggering offset (related to the RAN1 LS [R2-2204435](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204435.zip)):

[R2-2205505](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205505.zip) [E067][E068] TRS-based SCell activation Ericsson discussion

*Proposal 1 Network is allowed to configure one NZP-CSI-RS-ResourceSet for both MAC CE activation and DCI activation.*

*Proposal 2 Add a new field aperiodicTriggeringOffsetL2-r17 in the IE NZP-CSI-RS-ResourceSet to indicate triggering offset of CSI-RS tracking activated by MAC CE.*

- Huawei is not sure what this means in terms of specification change? Ericsson clarifies this is using the R16 and R17 offsets in the same NZP CSI-RS resource. It wasn't clear what RAN1 wanted. Huawei thinks the OPPO proposal implies similar behaviour.

- LGE thinks RAN1 just suggested two options: Either new parameter or reuse existing one. Thinks we should do the latter. QC agrees there could be two options.

* 1 Network is allowed to configure one NZP-CSI-RS-ResourceSet for both MAC CE activation and DCI activation.
* 2-1 Add a new field aperiodicTriggeringOffsetL2-r17 in the IE NZP-CSI-RS-ResourceSet to indicate triggering offset of CSI-RS tracking activated by MAC CE.
* 2-2 Configure only one TCI-state instead of TCI state list.
* 3 Use the TP in the Annex of [R2-2205505](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205505.zip) as baseline in discussion [226]

[R2-2204610](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204610.zip) [RIL-O405]-38331CR Corrections on TRS based SCell activation OPPO CR Rel-17 38.331 17.0.0 2980 - F LTE\_NR\_DC\_enh2-Core

*1. Remove the case of the CSI-RS for tracking for fast SCell activation with two NZP CSI-RS resources in one slot.*

*2. Configure only one TCI-state instead of TCI state list.*

*3. Add new IE aperiodicTriggeringOffset in SCellActivationRS-Config.*

Email discussion [226]

* [AT118-e][226][DCCA] Corrections for TRS-based Scell activation (Samsung)

      Scope: Provide MAC and RRC CRs for TRS-based Scell activation based on online decisions.

 Intended outcome: Agreeable MAC CR in [R2-2206369](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206369.zip) and RRC CR in [R2-2206370](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206370.zip).

 Deadline: Deadline 6 / Post-meeting email

### 6.2.5 UE capabilities

Please follow the general guidance on UE capabilities under 2.4 - only corrections related to RAN2 parts are discussed in WI-specific agenda. Work for capabilities from RAN1/4 is done under AI 6.0.2

Including essential corrections to RAN2-specific UE capabilities for SCG activation/deactivation, CPAC and temporary RS for SCell activation. Proposals that do not provide Stage-3 details will not be treated. Please use draft CRs for 38.331 and 38.306 to help with CR merging.

By Web Conf (2nd Week Wednesday) (1)

Correcting restriction related to consistent indication of per-band capabilities:

[R2-2205934](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205934.zip) Clarification on inter-SN CPC UE capability Huawei, HiSilicon CR Rel-17 38.306 17.0.0 0729 - F LTE\_NR\_DC\_enh2-Core Late

*In 4.2.9a, remove “at least one” from the UE capabilities of inter-SN-condPSCellChangeFDD-TDD-NRDC-r17, inter-SN-condPSCellChangeFR1-FR2-NRDC-r17;*

- Intel thinks the original wording was in line with R16. Similar CR is discussed in [021] for R16. So would be good to align since that is being agreed.

- Ericsson thinks we should use similar wording as for [021].

* Intent of [R2-2205934](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205934.zip) is agreed, to be included in the capability mega-CR

CPAC capability restriction:

[R2-2205425](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205425.zip) Discussion on UE Capability of CPAC CATT discussion Rel-17 LTE\_NR\_DC\_enh2-Core

*Proposal 1: RAN2 to discuss whether to remove the restriction that UEs supporting the CPAC shall support 2 trigger events for the same execution condition.*

*Proposal 2: TP in annex 1 should be adopted if RAN2 agree to remove the restriction that UEs supporting the CPAC shall support 2 trigger events for the same execution condition.*

*Proposal 3: If RAN2 agreed the restriction that UEs supporting the CPAC shall support 2 trigger events for the same execution condition still applies to R17 CPAC, RAN2 agree the TP in annex 2, so as to add the newly added CPAC feature within the field description of condPSCellChangeTwoTriggerEvents-r16.*

## 6.3 Multi SIM

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

Tdoc Limitation: 5 tdocs

Contributions should illustrate the Stage-3 details of the proposals (e.g. in an Annex containing TP against the running CRs). If a contribution does not provide TP, it may be deprioritized.

WI has been declared 100% complete

### 6.3.1 Organizational

Including LSs and any rapporteur inputs (e.g. from ASN.1 ad-hoc meeting).

By Web Conf (1st Week Thursday) (2)

[R2-2204442](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204442.zip) LS reply on RAN2 agreements for paging with service indication (S2-2201838 ; contact: vivo) SA2 LS in Rel-17 MUSIM, LTE\_NR\_MUSIM-Core To:RAN2 Cc:CT1, RAN3, SA3

- QC wonders how this works: SA2 assumes UE knows both CN and RAN support. Power saving added paging group that is different. UE will have to rely on CN so the support is uniform within RA. vivo thinks in case of RAN sharing one AMF may support it but another one doesn't.

* Noted (actions discussed via contributions to 6.3.2)

[R2-2204481](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204481.zip) Reply LS on RAN2’s agreement for MUSIM gaps (R4-2207032; contact: vivo) RAN4 LS in Rel-17 LTE\_NR\_MUSIM-Core To:RAN2

- QC thinks that performance was postponed to Rel-18 and number of gaps is up to RAN2. Still thinks two gaps is not enough and three gaps would be more efficient. With two gaps UE needs much larger gaps. Paging and IF measurement may have different periodicities. Apple agrees but wonders if it's possible to extend the number of gaps in Rel-18? QC thinks RAN4 will only work on what's in Rel-17 during RAN4 Rel-18 work. Nokia thinks having more gaps would help also network. Charter also supports additional gaps.

- Huawei thinks it's up to UE how to use the two gaps so doesn't see a motivation to more gaps. Samsung thinks UEs in the field do not have many periodic gaps so would be fine to keep two gaps. But doesn't see a problem to extend either. QC thinks this is not a problem for high-end UEs but for single-Tx single-Rx UEs it is. vivo agrees. Ericsson thinks anyway we have to wait until RAN4 has done their work in R18 so thinks we don't need to do anything now.

- MTK wonders if we extend the signalling or also extend the function so not all UEs might support 3 periodic gaps. ZTE thinks we can extend the signalling later on.

- Intel wonders if these gaps are independent from MGE. Chair thinks that's the case.

* Extend signalling to allow UEs to optionally support 3 periodic gaps in Rel-17. This can be included in the RRC CR rapporteur CR in offline [230].
* Noted (actions discussed via contributions to 6.3.3 and 6.3.4)

By Web Conf (1st Week Thursday) (1)

Including LSs and any rapporteur inputs (e.g. from ASN.1 ad-hoc meeting).

[R2-2204542](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204542.zip) Introduction of Multi-USIM devices to 36.304 China Telecommunications CR Rel-17 36.304 17.0.0 0845 - B LTE\_NR\_MUSIM-Core

* Agreed

By Email [230] (3)

[R2-2204892](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204892.zip) Correction of NR RRC support for MUSIM vivo(Rapporteur) CR Rel-17 38.331 17.0.0 3014 - F LTE\_NR\_MUSIM-Core Late

[R2-2204893](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204893.zip) Comments on MUSIM NR RRC Editorial class 0 issues vivo(Rapporteur) other Rel-17 LTE\_NR\_MUSIM-Core Late

[R2-2204894](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204894.zip) RIL List comments on MUSIM NR RRC vivo(Rapporteur) other Rel-17 LTE\_NR\_MUSIM-Core Late

By Email [231] (2)

[R2-2205848](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205848.zip) Corrections on MUSIM in LTE Samsung Electronics Co., Ltd CR Rel-17 36.331 17.0.0 4808 - F LTE\_NR\_MUSIM-Core Late

[R2-2205854](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205854.zip) Discussion on Editorial class 0 issues and RIL issues for MUSIM in LTE Samsung Electronics Co., Ltd discussion Rel-17 LTE\_NR\_MUSIM-Core Late

Email discussion [230], [231]

* [AT118-e][230][MUSIM] NR RRC corrections for MUSIM (vivo)

      Scope: Discuss NR RRC corrections for MUSIM and include corrections based on online decisions.

 Intended outcome: Agreeable CR in [R2-2206169](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206169.zip).

 Deadline: Deadline 5

* [AT118-e][231][MUSIM] LTE RRC corrections for MUSIM (Samsung)

      Scope: Discuss LTE RRC corrections for MUSIM and include corrections based on online decisions.

 Intended outcome: Agreeable CR in [R2-2206170](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206170.zip).

 Deadline: Deadline 5

By Email: Outcome of [230], [231] (1)

*[230] outcome CR:*

[R2-2206169](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206169.zip) Correction of NR RRC support for MUSIM vivo(Rapporteur) CR Rel-17 38.331 17.0.0 3014 1 F LTE\_NR\_MUSIM-Core [R2-2204892](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204892.zip) Late

*[231] outcome CR:*

[R2-2206170](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206170.zip) Corrections on MUSIM in LTE Samsung Electronics Co., Ltd CR Rel-17 36.331 17.0.0 4808 1 F LTE\_NR\_MUSIM-Core [R2-2205848](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205848.zip) Late

### 6.3.2 Paging collision avoidance and paging with service indication

Including essential corrections to paging collision avoidance and paging with service indication. Proposals that do not provide Stage-3 details will not be treated.

Including discussion on whether something needs to be captured in RAN2 specifications on UE behavior for NAS-based busy indication in RRC\_INACTIVE (which was postponed in RAN2#117e)

By Web Conf (1st Week Thursday) (1)

Paging cause AS-NAS interactions:

[R2-2204787](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204787.zip) Corrections on Paging Cause for 38.331 [O800] OPPO discussion Rel-17 LTE\_NR\_MUSIM-Core

*Obeservation1: In CT1 spec, whether NAS needs to inform lower layers that paging indication for voice services is supported or not, is up to UE implementation.*

*Obeservation2: No RAN2 agreement was made to introduce an explicit NAS-AS indication to indicate UE AS the support of paging cause.*

*Obeservation3: The spec change for 38.331 to capture NAS-AS indication to indicate UE AS the support of paging cause was added during the Post email#237 discussion after RAN2#117 meeting, which was based on SA2 LS* [*R2-2203958*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2203958.zip)*, not based on RAN2 agreements.*

*Obeservation4: Only paging cause capability exchange between UE NAS and AMF/MME was mentioned in SA2 LS* [*R2-2203958*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2203958.zip) *and no UE NAS-AS interaction on paging cause was involved in SA2 LS* [*R2-2203958*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2203958.zip)*.*

*Obeservation5: For paging cause capability indication, RAN2 made a mistake and CT1 just followed the RAN2 mistake.*

*Proposal 1: RAN2 agrees to revert the spec change for 38.331 to not capture any NAS-AS capability interaction on paging cause and agreed the corresponding TP in Subclause 4.*

*Proposal 2: If Proposal1 is agreed, please also correct the corresponding part for 36.331.*

*Proposal 3: Send a LS to CT1 and cc SA2 to correct RAN2 mistake on NAS-AS interaction for paging cause.*

*Proposal 4: RAN2 is requested to agree the corresponding drafted LS for paging cause.*

- vivo explains that CT1 did this by themselves and not because we asked them to. For RAN sharing, one AMF may support but another one doesn't. Thinks this was discussed already before but nobody raised concerns.There is nothing broken in our specification. Samsung agrees and thinks nothing is broken. This is more modelling issue. Nokia thinks indication to upper layers is not needed so the condition is not needed. QC thinks some AS-NAS interaction is needed and it's all about whether we put it to interactions.

* No technical problem with current specification. Change is not pursued.
* Noted

[R2-2204788](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204788.zip) Corrections on Paging Cause for 36.331 [O806] OPPO draftCR Rel-17 36.331 17.0.0 F LTE\_NR\_MUSIM-Core

[R2-2204789](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204789.zip) LS on NAS-AS interaction for paging cause OPPO LS out Rel-17 LTE\_NR\_MUSIM-Core To:CT1 Cc:SA2

[R2-2205130](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205130.zip) Interaction between NAS and AS for network switching ASUSTeK discussion Rel-17 38.304 LTE\_NR\_MUSIM-Core

*(moved from 6.3.4)*

By Web Conf (2nd Week CB) (1)

[R2-2205216](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205216.zip) Corrections to TS 38.300 spec for MUSIM Huawei, HiSilicon draftCR Rel-17 38.300 17.0.0 LTE\_NR\_MUSIM-Core

By Web Conf (1st Week Thursday) (1)

Paging cause handling for INACTIVE:

[R2-2205762](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205762.zip) Clarification on UE behavior for NAS-based busy indication in RRC\_INACTIVE Samsung Electronics Co., Ltd discussion Rel-17 LTE\_NR\_MUSIM-Core [R2-2202239](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2202239.zip)

*Observation 1: According to SA2 specification, IDLE UE may not send NAS-based busy indication even if it decides to reject the paging due to UE implementation constraints.*

*Observation 2: Current procedure text in the running RRC CR may mislead for UE to always resume RRC connection to accept or reject the RAN paging.*

*Proposal 1: Confirm that INACTIVE UE may not send NAS-based busy indication even if it decides to reject the RAN paging due to UE implementation constraints as in IDLE UE.*

*Proposal 2: If Proposal 1 is agreeable, RAN2 to discuss whether to capture it in the minutes or a note in the specification.*

- ZTE thinks if UE rejects RAN paging it should send Service Request, so would send busy indication. This could impact CT1 specification. QC disagrees and thinks this is up to UE implementation. This we could capture this. OPPO thinks this was not discussed before but can accept this. Nokia thinks sending busy it's still possible. MTK, LGE, Apple, Huawei, DENSO, Lenovo support P1. ZTE thinks that if NAS tells UE to go to CONNECTED, AS will follow.

- QC clarifies CT1 specs says this: " Upon being paged by the network, the Multi-USIM UE in CM-IDLE state attempts to send a Service Request message to this network including the Reject Paging Indication, unless it is unable to do so, e.g. due to UE implementation constraints." Samsung thinks INACTIVE UE is in CM-CONNECTED so this may not be sufficient. vivo thinks we could add a NOTE. Ericsson thinks NOTE is informative but procedural text would be different so would prefer procedural text. Intel agrees that strictly speaking this is correct but since AS-NAS interaction is not specified NOTE could be sufficient. Ericsson thinks we could add "as specified elsewhere" or similar. ZTE thinks for INACTIVE, CT1 specification says that if UE rejects RAN paging, it still sends Service Request.

* Capture NOTE about INACTIVE UE behaviour if it rejects RAN paging in 38.331. Can discuss exact wording for the NOTE offline. Should refer to CT1 specifications.
* Offline 234 (Samsung) to discuss RRC CR on this.

[R2-2205542](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205542.zip) Specifying UE behaviour for Paging cause for RAN based Paging Intel Corporation discussion Rel-17 LTE\_NR\_MUSIM-Core

*Observation #1: As no behaviour is specified in the current specification, UE AS has to send Resume Request in response to Paging request. It further implies that UE cannot ignore the Paging message and shall take no other action for RAN paging in INACTIVE and cannot send Busy Indication. These are clearly not aligned with the agreement or intention for MUSIM devices.*

*Proposal #1: Capture a NOTE as above to clarify that MUSIM UE may not respond to Paging message.*

*Observation #2: NAS has to be provided with the paging cause also for RAN paging.*

*Proposal #2: Capture that Paging cause is provided to NAS also for RAN Paging*

[R2-2204617](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204617.zip) Paging cause handling for RRC-INACTIVE Nokia, Nokia Shanghai Bells discussion Rel-17

*Observation 1: Paging cause parameter is applicable for RAN paging sent using I-RNTI as per current SA2 specifications.*

*Observation 2: The specification changes in TS38.331 for MUSIM did not include the UE behaviour for reception of paging cause in RRC-INACTIVE when the paging identifier is set to RAN identifier.*

*Proposal: Paging cause handling for RAN paging received with RAN Identifier for RRC-INACTIVE is included in the specification.*

[R2-2205173](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205173.zip) UE behaviour for NAS busy indication in RRC\_INACTIVE Huawei, HiSilicon discussion Rel-17

*Proposal: To capture the following Note in section 5.3.2.3 of RRC speciation.*

*Note: If a MUSIM UE in RRC\_INACTIVE state decides not to accept the paging, it may not initiate the RRC resume procedure, e.g. due to UE implementation constraints.*

[R2-2205172](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205172.zip) Discussion on the cross layer indication for paging cause Huawei, HiSilicon discussion Rel-17

*Proposal: Send an LS to SA2 to inform them of RAN2 agreements on cross layer indication for paging cause.*

[R2-2205336](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205336.zip) Further Consideration on the Inactive State Busy Indication ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_MUSIM-Core

*Observation 1：According to the CT1 spec, the UE is allowed not to respond the paging at the CN\_Idle state. But for the 5GMM-CONNECTED mode, the UE NAS would always send the busy indication when the MUSIM UE decides to reject the RAN paging.*

*Observation 2: UE AS layer can’t distinguish the Busy Indication message from the other NAS message.*

*Observation 3：Whether the UE resume the connection immediately or resume the connection based on a request from NAS layer was left to the UE implementation, and which has been included in the CT1 spec.*

*Proposal 1: Whether and how to send the Inactive state busy indication has been specified at CT1, there is no RAN2 spec impact.*

Email discussion [234]

* [AT118-e][234][MUSIM] UE behavior for NAS-based busy indication in RRC\_INACTIVE (Samsung)

      Scope: Discuss how to capture NOTE about INACTIVE UE behaviour if it rejects RAN paging in 38.331 and come up with CR for this.

 Intended outcome: Discussion report in [R2-2206363](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206363.zip) and agreeable CR in [R2-2206169](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206169.zip).

 Deadline: Deadline 5

By Web Conf (2nd Week CB) and By Email: Outcome of [234] (1)

[R2-2206363](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206363.zip) Report of [AT118-e][234][MUSIM] UE behavior for NAS-based busy indication in RRC\_INACTIVE (Samsung) Samsung discussion Rel-17 LTE\_NR\_MUSIM-Core Late

Bulk agreement

* [234] 1: From RAN2 perspective, confirm that INACTIVE UE may not be able to send a Service Request message to the network including the Reject Paging indication as a response to the RAN paging due to UE implementation constraints.
* [234] 2: From RAN2 perspective, agree to add the following NOTEs in TS 38.331 and TS 36.331 respectively as follows:

NOTE in TS 38.331: A MUSIM UE may not initiate the RRC connection resumption procedure, e.g. when it decides not to respond to the Paging message due to UE implementation constraints as specified in TS 24.501 [23].

NOTE in TS 36.331: A MUSIM UE may not initiate the RRC connection resumption procedure, e.g. when it decides not to respond to the Paging message due to UE implementation constraints as specified in TS 24.501 [95].

* [234] 4: Send LS to CT1/SA2 to inform them of our decision and to ask them to update their specifications accordingly if needed.
* [Post118-e][235][NR] LS to CT1/SA2 on NAS busy indication (NN)

 Scope: Provide LS to CT1/SA2 on RAN2 agreements for the NAS busy indication.

 Intended outcome: Approved LS

 Deadline: Short

By Web Conf (2nd Week CB): Outcome of [234] (1)

*Proposals needed to be discussed online:*

*Proposal 3: RAN2 to discuss whether to add NOTEs on P2 in this meeting or after receiving CT1/SA2's confirmation.*

[R2-2206574](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206574.zip) Correction on UE behavior for NAS-based busy indication in RRC\_INACTIVE Samsung CR Rel-17 36.331 17.0.0 4822 - F LTE\_NR\_MUSIM-Core

* ?? Agreed? (TBD after online)

[R2-2206575](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206575.zip) Correction on UE behavior for NAS-based busy indication in RRC\_INACTIVE Samsung CR Rel-17 38.331 17.0.0 3182 - F LTE\_NR\_MUSIM-Core

* ?? Agreed? (TBD after online)

### 6.3.3 NW switching for multi-SIM without leaving RRC\_CONNECTED

Including essential corrections to procedures for NW switching for multi-SIM without leaving RRC\_CONNECTED. Proposals that do not provide Stage-3 details will not be treated.

By Email [230] (5)

Miscellaneous RIL-related contributions:

[R2-2205312](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205312.zip) [H083] Corrections to NR RRC for MUSIM Huawei, HiSilicon draftCR Rel-17 38.331 17.0.0 LTE\_NR\_MUSIM-Core

[R2-2205763](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205763.zip) [S676] Further discussion on handling of musim-GapConfig in RRC\_INACTIVE Samsung Electronics Co., Ltd discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2205765](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205765.zip) [S676] Correction on handling of musim-GapConfig in RRC\_INACTIVE\_Opt 1 Samsung Electronics Co., Ltd CR Rel-17 38.331 17.0.0 3115 - F LTE\_NR\_MUSIM-Core

[R2-2205767](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205767.zip) [S676] Correction on handling of musim-GapConfig in RRC\_INACTIVE\_Opt 2 Samsung Electronics Co., Ltd CR Rel-17 38.331 17.0.0 3116 - F LTE\_NR\_MUSIM-Core

[R2-2205772](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205772.zip) [S677] Correction on the IE MUSIM-GapConfig in ASN.1 Samsung Electronics Co., Ltd discussion Rel-17 38.331 LTE\_NR\_MUSIM-Core

By Email [232] (5+5+2+1)

Duration of MUSIM gaps:

[R2-2205964](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205964.zip) Configuration of MUSIM Gaps Qualcomm Incorporated discussion

* Only P2 and P3 discussed (P1 can be discussed online with RAN4 LS [R2-2204481](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204481.zip))

Gap priority and alignment with other gap types:

[R2-2204896](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204896.zip) Discussion on MUSIM gap priority vivo discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2205755](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205755.zip) Mandatory values for Multi-USIM gap patterns Ericsson discussion

[R2-2205758](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205758.zip) Alignment between RAN2 and RAN4 Multi-USIM gap Ericsson discussion

[R2-2205759](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205759.zip) IE harmonization for MUSIM UAI and gap configuration Ericsson discussion

[R2-2204618](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204618.zip) On remaining issues for UAI related to MUSIM Nokia, Nokia Shanghai Bells discussion Rel-17

*(moved from 6.3.4)*

MUSIM gap configuration:

[R2-2204614](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204614.zip) Alternative ASN.1 for MUSIM Gap Configuration Nokia, Nokia Shanghai Bells discussion Rel-17

[R2-2204615](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204615.zip) Alignment of text for MUSIM gap configuration Nokia, Nokia Shanghai Bells discussion Rel-17

[R2-2204895](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204895.zip) Discussion on handling of MUSIM gaps vivo discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2205322](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205322.zip) Further consideration on the MUSIM gaps ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2205197](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205197.zip) Corrections to NW switching procedure without leaving RRC\_CONNECTED Huawei, HiSilicon discussion Rel-17

MAC behaviour during MUSIM gaps:

[R2-2205042](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205042.zip) Clarification on MAC behaviour during MUSIM gaps NEC CR Rel-17 38.321 17.0.0 1248 - F LTE\_NR\_MUSIM-Core

[R2-2205120](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205120.zip) Stop using of MUSIM Gap requested to be released Sharp discussion [R2-2202770](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2202770.zip)

Email discussion [232]

* [AT118-e][232][MUSIM] Corrections to MUSIM gap configuration aspects (Qualcomm)

      Scope: Discuss corrections for MUSIM gap configurations to determine which are agreaable. Should focus on essential corrections.

 Intended outcome: Discussion report in [R2-2206171](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206171.zip).

 Deadline: Deadline 4

By Email: Outcome of [232] (1)

*Report of [232]:*

[R2-2206171](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206171.zip) Report of [AT118-e][232][MUSIM] Corrections to MUSIM gap configuration aspects (Qualcomm) Qualcomm Inc. discussion Rel-17 LTE\_NR\_MUSIM-Core Late

Bulk agreements

* [232] 1: RAN2 does not consider extending the MUSIM gap durations in Rel-17.
* [232] 2: RAN2 assumes that handling of RLM/BFD during MUSIM gaps will be addressed by RAN4 in Rel-18.
* [232] 3: Signaling a “gap priority” in UAI for MUSIM gaps is not supported in Rel-17.
* [232] 4: The propsosal in [R2-2204618](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204618.zip), where the UE sends UAI with the same MUSIM request if the previous request is not granted, is not agreed.
* [232] 5: The proposal in [R2-2204618](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204618.zip) that UE does not need to stop prohibit timer if the NW disables MUSIM assistance for gap preference is not agreed.
* [232] 6: Mandatory MUSIM gap patterns are not introduced in Rel-17. RAN2 keeps the agreement that the UE can request any MUSIM gap pattern defined in TS 38.133.
* [232] 7: Add the following sentence in the field description of *musim-GapPreferenceList*: "*musim-GapPreferenceList*: Indicates the MUSIM gap(s) that the UE prefers to be configured with. The UE indicates preference for MUSIM gap(s) in accordance with clause 9.1.10 of TS 38.133."
* [232] 9: The proposal in [R2-2204614](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204614.zip) to isolate the periodic and aperiodic gap configurations into separate IEs is not agreed.
* [232] 10: Agree to the TP in [R2-2204615](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204615.zip). This can be included in WI Rapporteur CR for 38.331.
* [232] 11: Confirm that the network configured *musim-GapRepetitionAndOffset* shall be aligned with the UE request.
* [232] 17: RAN2 to confirm that MUSIM gap is released only upon receiving signaling from NW for the release.

By Web Conf (2nd Week CB): Outcome of [232] (1)

*NEEDS DISCUSSION (sorted in increasing order of contention):*

*Proposal 14: The following statement should be captured in 38.300. Discuss whether it is also needed in 38.331.*

*Network should always provide at least one of the requested gap pattern or no gaps. Network providing an alternative gap pattern instead of the one requested by the UE is not supported in this release*

*Proposal 15: The UE is allowed to initiate RACH procedure during MUSIM gaps. It is FFS if/how this is captured in the specifications.*

*Proposal 13: Discuss the following and whether/how they can be captured in the specifications:*

*If the UE indicates the musim-PrefStarting-SFN-AndSubframe, the network can only configure the aperiodic Gap with the same start point or no aperiodic gap.*

*If the UE doesn’t indicate the musim-PrefStarting-SFN-AndSubframe, the network can configure the start point for the aperiodic gap flexibly.*

*Proposal 8 : Discuss harmonization of MUSIM gap signaling e.g. as proposed in* [*R2-2205759*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205759.zip)

*Proposal 16: Discuss whether to restrict uplink transmissions during MUSIM gaps.*

Not Treated (not essential or no Stage-3 details provided) (2)

[R2-2205652](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205652.zip) Additional Issues related to MUSIM Apple discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2204747](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204747.zip) Remaining issues about UE indication on switching Spreadtrum Communications discussion Rel-17

*(moved from 6.3.4)*

### 6.3.4 NW switching for multi-SIM with leaving RRC\_CONNECTED

Including essential corrections to procedures for NW switching for multi-SIM with leaving RRC\_CONNECTED. Proposals that do not provide Stage-3 details will not be treated.

By Email [230] (3)

Miscellaneous RIL-related contributions or RRC corrections:

[R2-2205501](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205501.zip) [L020] Correction for AS-based leaving when RAN paging in MUSIM LG Electronics Finland discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2205729](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205729.zip) Further clarification on the waiting timer for leaving connected state [Z294][O802] ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2205757](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205757.zip) Behaviour of wait timer Ericsson discussion

Not Treated (proposals require no changes to specification) (1)

[R2-2205211](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205211.zip) Further clarification on the wait timer for NW switching with leaving RRC\_CONNECTED Huawei, HiSilicon discussion Rel-17

### 6.3.5 UE capabilities

Please follow the general guidance on UE capabilities under 2.4 - only corrections related to RAN2 parts are discussed in WI-specific agenda. Work for capabilities from RAN1/4 is done under AI 6.0.2

Including essential corrections to RAN2-specific UE capabilities for MUSIM. Proposals that do not provide Stage-3 details will not be treated. Please use draft CRs for 38.331 and 38.306 to help with CR merging.

By Web Conf (1st Week Thursday) (1)

Need for AS UE capability:

[R2-2205547](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205547.zip) Need for UE capability for Paging cause for RAN ID based paging Intel Corporation discussion Rel-17 LTE\_NR\_MUSIM-Core

*Observation #1: Supporting Paging cause for RAN paging adds/changes the current UE AS behaviour.*

*Observation #2: UE supporting Paging cause for both NAS and RAN ID based paging message allows the network using the NAS level capability indication for inclusion of Paging cause also in RAN paging. That is, a UE supporting Paging cause for NAS Paging also supports Paging for RAN Paging.*

*Observation #3: Introducing an explicit conditional mandatory UE capability (without capability signalling) for Paging cause for RAN paging, while not essential, could be useful as it provides clarity on the different handling in AS layer.*

*Proposal #1: Introduce a conditional mandatory UE capability without capability bit for support of Paging cause in RAN Paging.*

*Proposal #2: If proposal #1 is agreed, consider the text proposal*

- Huawei thinks this is not essential and there is no issue. AS-NAS interaction is left to UE implementation. Apple wonders if any UE would implement CN paging cause but RAN paging cause? Intel thinks this is just clarification and doesn't change anything we agreed. Samsung thinks P1 is correct UE behaviour so would be fine to capture it. But can also capture the agreement in minutes. vivo thinks deploying the paging cause in CN now requires also RAN to support it. So it's good to make it clear to avoid field issues. Huawei thinks the paging record list solves the issue for UE.

* 1 Introduce a conditional mandatory UE capability without capability bit for support of Paging cause in RAN Paging.

[R2-2205756](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205756.zip) Remaining aspects on UE capabilities for Multi-USIM and other issues Ericsson discussion

*Proposal 1 Update musimGapPreference-r17 to account for the UE support of both MUSIM gap preference and MUSIM gap configuration.*

*Proposal 2 No change of RRC processing delay requirements is needed for MUSIM UEs*

[R2-2204616](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204616.zip) Editorial corrections for UE capability Nokia, Nokia Shanghai Bells discussion Rel-17

*Proposal 1: Align capability description in TS 38.306 for musimGapPreference-r17 on the same lines of musimLeaveConnected-r17 which also aligns well to TS 38.331.*

Email discussion [233]

* [AT118-e][233][MUSIM] UE capability corrections for MUSIM (Intel)

 Scope: Provide final input on the MUSIM capabilities for the UE capability mega-CR based on online decisions.

 Intended outcome: Discussion report in [R2-2206362](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206362.zip) and draft CRs (to be merged to the UE capability mega-CRs) in [R2-2206182](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206182.zip) (38.306) and [R2-2206183](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206183.zip) (38.331).

 Deadline: Deadline 5

By Web Conf (2nd Week CB): Outcome of [233] (1)

*[233] report and outcome CRs:*

[R2-2206362](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206362.zip) Report of [AT118-e][233][MUSIM] UE capability corrections for MUSIM (Intel) Intel discussion Rel-17 LTE\_NR\_MUSIM-Core Late

[R2-2206182](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206182.zip) Corrections to MUSIM UE capabilities Intel draftCR Rel-17 38.306 17.0.0 LTE\_NR\_MUSIM-Core

[R2-2206183](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206183.zip) Corrections to MUSIM UE capabilities Intel draftCR Rel-17 38.331 17.0.0 LTE\_NR\_MUSIM-Core

## 6.8 RAN slicing

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

Tdoc Limitation: 5 tdocs

This WI has approved exception sheet in RP-220940 and contributions should prioritize solving the issues listed in the exception sheet. Contributions that are not essential corrections may be deprioritized.

Contributions should illustrate the Stage-3 details of the proposals (e.g. in an Annex containing TP against the running CRs). If a contribution does not provide TP, it may be deprioritized.

### 6.8.1 Organizational

Including LSs and any rapporteur inputs (e.g. from ASN.1 ad-hoc meeting).

Including rapporteur input on WI finalization based on SA2 progress on slice group definition and slice group prioritization.

By Web Conf (1st Week Monday) (1)

SA2 LS on slice groups and slice priorities:

[R2-2204526](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204526.zip) Reply LS on Slice list and priority information for cell reselection (S2-2203597; contact: ZTE) SA2 LS in Rel-17 TEI17, NR\_slice-Core To:RAN2, RAN3, CT1, CT4

*SA2 would like to inform RAN2, RAN3, CT1, CT4 about SA2 progress of supporting Slice Groups and Network Slice priorities required for enabling RAN Slicing as per Work Item NR\_Slice-Core.*

*SA2 confirms that the mapping of slice to the slice group is per TA, and slice group priority is sent to the UE over NAS message by the AMF. SA2 approved the attached CRs.*

*SA2 would like to emphasize that the support of network sharing is required for all features unless agreed otherwise so an optional PLMN index indication or a similar concept should be considered to be added as part of the slice group format in SIB.*

*For your information in SA2 the slice group is referred as NSAG (Network Slice AS Group).*

* Noted (RAN2 can now proceed and actions for RAN2 are discussed via contributions in 6.8.2)

By Web Conf (1st Week Monday) (1)

*RRC corrections: RIL for LTE and NR RRC*

[R2-2205082](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205082.zip) Discussion on RIL list for RAN slicing Huawei, HiSilicon discussion Rel-17 NR\_slice-Core Late

*H502 (Huawei) Chen Jun SLIC 1 Nokia:* [*R2-2205495*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205495.zip) *ToDo discuss (AT Meeting) In section 6.2.2 (RRCRelease message), the slice info (i.e. freqPriorityListNRSlicing-r17) was introduced. RAN2#113b-e agreed that UE is only configured with either the existing dedicated priority configuration or the slice info in RRC Release. However, there is no such definition in ASN1. It is proposed to add some clarifications in the field descriptions. For example: - for freqPriorityListEUTRA/freqPriorityListNR, it is configured only if freqPriorityListNRSlicing is not configured - for freqPriorityListNRSlicing, it is configured only if freqPriorityListEUTRA/freqPriorityListNR is not configured*

*B003 Lenovo (Hyung-Nam) SLIC 2 None ToDo discuss (AT Meeting) Extension marker should not be used in list elements if they are broadcast in SIB since it costs approx. 3 bytes overhead per list element. Future extensions should be introduced using parallel lists (same approach as used in SIB3/SIB4). Remove extension marker from IE SliceInfo-r17.*

*N033 Nokia(GWO)1 SLIC 1* [*R2-2205494*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205494.zip) *ToDo discuss (AT Meeting) FreqPriorityListNRSlicing field descriptions: in the field description fields from other IEs are described, separate table for SliceInfo would be required. As this IE is expected to be changed at RAN2#118 due to open issues, it is proposed to handle this issue at the RAN2#118 with a separate tdoc in the slicing WI session.*

*E140 Ericsson (Håkan) SLIC 2* [*R2-22xxxx*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-22xxxx%09.zip) *ToDo discuss (AT Meeting) Freq list in SIB16 for slicing The freq list with sliceinfo in SIB16 should preferably have 1-1 mapping (list size and indexes of entries) to the InterFreqCarrierFreqList in SIB4. Should avoid current skewed linking between SIB4 and SIB16 lists. Slice info for the current freq should have separate fields outside the freq list. List size 0 should not be used, see no reason. Max list size maxfreq (8) will be correct, currently 1+8=9 would be needed? Further (editorial comment), text that describes IE FreqPriorityListNRSlicing should be placed under the IE section header, not among FreqPriorityListNRSlicing field descriptions*

*Z325 ZTE(Yuan) NR\_Slice -Core 2 None ToDo discuss (AT Meeting) The FreqPriorityListNRSlicing is used to configure cell reselection priorities for slicing in SIB16 and RRCRelease message. But it is not clear whether the cell reselection priorities for slicing in SIB16 and RRCRelease message can only configured for frequencies listed in SIB2 and SIB4. For example, in the existing cell reselection priority configuration, the “network may assign dedicated cell reselection priorities for frequencies not configured by system information.” If network is allowed to configure cell reselection priorities for slicing for frequencies not listed in SIB2 and SIB4, we understand the frequency band indicator should be provided.*

*S252 Hyunjeong Kang (Samsung) SLIC 1 None ToDo discuss (AT Meeting) We should restrict that sliceAllowCellListNR is provided only for inter-frequency cells to be inline with 5.2.4.5 of TS 38.304; UE checks whether the cell supports slicegroup only during inter-frequency cell reselection. Indicates the list of allow-listed neighbouring cells for slicing. If present, cells not listed in this list do not support the corresponding sliceGroup-frequency pair. gNB includes only inter-frequency cells in sliceAllowCellListNR.*

*H505 (Huawei) Chen Jun SLIC 1 Nokia:* [*R2-2205495*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205495.zip) *and Lenovo:* [*R2-2205693*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205693.zip) *ToDo discuss (AT Meeting) There is one FFS: FFS if the field can be provided in RRCRelease. This should be addressed in a separate TDOC*

*S253 Hyunjeong Kang (Samsung) SLIC 1 None ToDo discuss (AT Meeting) We should restrict that sliceExcludeCellListNR is provided only for inter-frequency cells to be inline with 5.2.4.5 of TS 38.304; UE checks whether the cell supports slicegroup only during inter-frequency cell reselection. Indicates the list of exclude-listed neighbouring cells for slicing. If present, cells not listed in this list do not support the corresponding slice sliceGroup-frequency pair. gNB includes only inter-frequency cells in sliceExcludeCellListNR.*

*X802 Xiaomi(Xiaofei Liu) SLIC 1 None ToDo discuss (AT Meeting) The applicable RACH configuration of this parameter is still under discussion. Problem: We can note that parameters in RACH-configCommon can also be reused to apply for AdditionalRACH-ConfigCommon-r17( including the slice-specific RACH configuration), which means that the ra-PrioritzationForSlicing-r17 can be applied for legacy 4-step RACH configuration and 4-step slice-specific RACH configuration. However, in last meeting, RAN slicing only agreed that this parameter can work with RACH partition independently, but how to work is still under discussion, in other words, we have not decided this parametes can be applied for legacy RACH configuration or slice-specific RACH configuration or both. Solution: Add an Editor’Note as follows: Editor’Note: FFS on which RACH configuration (i.e. legacy RACH configuration or slice-specific RACH configuration or both) the ra-PrioritizationForSlicing can be applied for.*

*X804 Xiaomi(Xiaofei Liu) SLIC 1 None ToDo discuss (AT Meeting) The applicable RACH configuration of this parameter is still under discussion. Problem: We can note that parameters in RACH-configCommonTwoStepRA can also be reused to apply for AdditionalRACH-ConfigCommon-r17( including the slice-specific RACH configuration), which means that the ra-PrioritzationForSlicing-r17 can be applied for legacy 2-step RACH configuration and 2-step slice-specific RACH configuration. However, in last meeting, RAN slicing only agreed that this parameter can work with RACH partition independently, but how to work is still under discussion, in other words, we have not decided this parametes can be applied for legacy RACH configuration or slice-specific RACH configuration or both. Solution: Add an Editor’Note as follows: Editor’Note: FFS on which RACH configuration (i.e. legacy RACH configuration or slice-specific RACH configuration or both) the ra-PrioritizationForSlicing can be applied for.*

*S254 Hyunjeong Kang (Samsung) SLIC 1* [*R2-22xxxxx*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-22xxxxx.zip) *ToDo discuss (AT Meeting) FreqPriorityNRSlicing is configured related to the position of frequencies in SIB. This is inefficient when slice information list is broadcasted in SIB16. The current structure and description may not be suitable when FreqPriorityListNRSlicing is included in RRC Release. Include Frequency-index in FreqPriorityNRSlicing to provide the linking between SIB16 list and SIB2/SIB4 list. FreqPriorityListNRforSlicing should not be linked with SIB2/SIB4 in RRC Release. A contribution will be submitted in RAN2#118e.*

*C154 CATT (Haocheng) SLIC 1 Nokia:* [*R2-2205494*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205494.zip) *ToDo discuss (AT Meeting) The SliceGroupID appears in multiple IEs in the specification. So it is needed to create a new IE for SliceGroupID. Creat a new IE for SliceGroupID. A contribution will be submitted in RAN2#118e.*

*B206 Lenovo Prateek NR\_Slice -Core 1* [*R2-2205615*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205615.zip) *ToDo discuss (AT Meeting) 32 PCIs might be repeated in at least 16\*8 entries (based on the assumption now, which may grow depending on the length of total Slice Group and size of max cells for any slice). This is hugely signalling inefficient. A new structure that utilizes ordinal signalling needs to be used. A TP for affecting this change will be submitted.*

*B205 Lenovo Prateek NR\_Slice -Core 1* [*R2-2205693*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205693.zip) *ToDo discuss (AT Meeting) It needs to be added that “Slice Group supported by any cell on a frequency is included in the SliceInfoList for that frequency.” Otherwise UE is not sure if it has an exhaustive list or if it needs to read SI of the highest priority neighbouring cell. Add the said text in the description field “Slice Group supported by any cell on a frequency is included in the SliceInfoList for that frequency.”*

* Noted (RIL discussed in [240])

[R2-2205083](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205083.zip) Discussion on Editorial issues for RAN slicing Huawei, HiSilicon discussion Rel-17 NR\_slice-Core Late

* Editorial changes agreed (already part of [R2-2205084](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205084.zip))

By Email [240] (1)

[R2-2205084](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205084.zip) Corrections to TS 38.331 for RAN slicing Huawei, HiSilicon CR Rel-17 38.331 17.0.0 3040 - F NR\_slice-Core Late

* Discussed in email [240]
* Revised in [R2-2206172](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206172.zip) (all RRC changes agreed in this meeting to be merged to this CR)

Email discussion [240], [241]

* [AT118-e][240][Slicing] Finalizing RRC for RAN slicing (Huawei)

      Scope: Finalize RRC CR for RAN slicing based on meeting decisions.

 Intended outcome: Discussion report in [R2-2206173](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206173.zip) and agreeable CR in [R2-2206172](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206172.zip).

 Deadline: Deadline 5

* [AT118-e][241][Slicing] Finalizing Stage-2 for RAN slicing (Nokia)

      Scope: Finalize Stage-2 CR for RAN slicing based on meeting decisions.

 Intended outcome: Discussion report in [R2-2206184](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206184.zip) and agreeable CR in [R2-2205491](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205491.zip).

 Deadline: Deadline 5

By Email: Outcome of [240], [241] (2)

[R2-2206173](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206173.zip) Report of [AT118-e][240][Slicing] Finalizing RRC for RAN slicing (Huawei) Huawei discussion Rel-17 NR\_Slice-Core Late

* [240] 1: Remove the extension marker in the *FreqPriorityListNRSlicing-r17* IE.
* [240] 2: Agree to have a separate table (about field descriptions) for SliceInfo.
* [240] 3: Set upper limit of *FreqPriorityListNRSlicing* to maxFreqPlus1 (9).
* [240] 4: Change minimum number of list elements in *FreqPriorityListNRSlicing* from 0 to 1.
* [240] 5: Rename field *cellReselectionPriority-r17* to *nsag-CellReselectionPriority*.
* [240] 6: For slice info in *RRCRelease* message, the network may assign dedicated cell reselection priorities for frequencies not configured by system information.
* [240] 7: The configuration of *sliceCellListNR-r17* IE for serving frequency is allowed.
* [240] 8: The slice-specific RA prioritization parameters can be applied for the legacy RACH resource without associated with any feature combination (no spec impacts).
* [240] 9: Include Frequency-index in *FreqPriorityNRSlicing* to provide the linking between SIB16 list and SIB2/SIB4 list. The size of SIB16 list needs to be maxFreq-plus-1.
* [240] 10: *dl-carrierFreq* needs to be explicitly provided in *FreqPriorityListNRforSlicing* in RRC Release.
* [240] 11: Create a new IE NSAG-ID for *SliceGroupID*.
* [240] 12: The following RILs are not pursued: H502, S252, S253, B205, B206.
* [240] SA2-compliant terminology (e.g. NSAG) should be used in RAN slicing CRs. If issues are found, terminology alignment CRs can be considered in the next RAN2 meetings.

*[240] outcome CR:*

[R2-2206172](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206172.zip) Corrections to TS 38.331 for RAN slicing Huawei, HiSilicon CR Rel-17 38.331 17.0.0 3040 1 F NR\_slice-Core [R2-2205084](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205084.zip) Late

*[241] outcome CR:*

[R2-2206184](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206184.zip) Report of [AT118-e][241][Slicing] Finalizing Stage-2 for RAN slicing (Nokia) Nokia discussion Rel-17 NR\_Slice-Core Late

* [241] P1-7 are endorsed as Phase1 conclusion of the discussion. The CR in [R2-2205491](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205491.zip) takes those proposals into account.

[R2-2205491](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205491.zip) Updates for RAN Slicing from RAN2#118 Nokia, Nokia Shanghai Bell CR Rel-17 38.300 17.0.0 0462 - F NR\_slice-Core Late

* [241] Agreed

### 6.8.2 Cell reselection

This agenda item may use a summary document (decision to be made based on submitted tdocs)

Including discussion on how the network control works for slice-specific cell reselection and any corrections to the principles of slice-specific cell reselection.

Including discussion slice group handling and slice group prioritization based on SA2 progress.

By Web Conf (1st Week Monday) (1)

TA codes in slice-specific priorities and RAN sharing

[R2-2205032](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205032.zip) Discussion on open issues for slice based cell reselection CMCC discussion Rel-17 NR\_slice-Core

*Observation 1: According to SA2 CRs, in case of a slice group id (i.e., NSAG in SA2) is used in different TAs with a different association with NSSAIs, a TAI should be associated with the slice group id. And at most 4 slice groups can have an optional TAI associated with it.*

*Observation 2: In current RAN slicing specification, RAN sharing is already supported by network implementation.*

*Proposal 1: Introduce an optional trackingAreaIdentity-r17 IE within SliceInfo-r17 to indicate the associated TAI for the slice group. The TAI should present if the sliceGroupID-r17 is used in different TAs with a different association with NSSAIs according to TS 23.501.*

- Nokia thinks TAI includes both PLMN and TAC but in most cases TAC is sufficient. Thinks PLMN could be optional as it's only needed for RAN sharing cases.

- QC has concern with P1 as this will introduce UE complexity. Thinks we only need to clarify that only current TA slicing information is used.

- ZTE wonders if the TAI would be broadcast in SIB1? If so, which TAI is used in case of RAN sharing. CMCC explains that this is not only for RAN sharing. At most 4 NSAG can have TAI associated. This is to allow NSAG collision handling in different TAs.

- Intel thinks NSAG should be consistent from UE viewpoint. If that is not possible, we will need TAC. Agree with QC that 304 uses "slice group", but two NSAG with the same ID may not be the same slice group but doesn't agree with QC solution.

- OPPO thinks that if we need TAC in SIB there is overhead. Can have solutions even without TAI. Agrees with CMCC that no other enhancements for RAN sharing are needed.

- Apple thinks 304 complexity is not different from what we already agreed. Should discuss if cell is allowed to broadcast neighbour cell NSAG.

- Lenovo wonders if every slice is mapped to NSAG and this new TAI is mapped to that. It's mapped to more than one NSAG. Wonders when the IE is present and when absent?

- Ericsson thinks that while IEs are simple we haven't discussed these much. Should clarify how network acquires this knowledge and thinks it's by OAM. Then NSAG would be per serving cell so TAC is not needed. Nokia thinks that if SIB16 is advertising NSAG mapping for neighbour cells and they are part of different TA, the NSAG can have different meaning. That's why we need TAC and thinks OAM is not part of RAN2 scope. Apple agrees. CMCC clarifies that only when one NSAG has different meaning for neighbouring cells belongs to different TAs, the TAC should present. Otherwise, TAC is absent. This is align with SA2 CR. CATT and Nokia agree.

- Lenovo wonders if we need more than one TAC for each frequency? Intel thinks one TAC is sufficient.

- Ericsson still wonders how this is configured in network? Thinks this is very complex and would disallow TAC.

- Vodafone thinks we need to minimize the SIB overhead. CMCC reminds that SA2 limited to 4 NSAGs to reduce overhead.

* 1: Introduce an optional trackingAreaIdentity-r17 IE within SliceInfo-r17 to indicate the associated TAI for the slice group. The TAI should present if the sliceGroupID-r17 is used in different TAs with a different association with NSSAIs according to TS 23.501.

- Huawei thinks 8 bits could be enough. Nokia agrees. Ericsson thinks if we don't have TAC, we could have 16 bits. CMCC thinks 16 bits would be better to allow better consistency within the whole PLMN. Intel thinks we could have something in between. Vodafone thinks 8 bits could be sufficient. MTK agrees. Nokia thinks for RACH, 8 bits would be better since it's used in RACH partitioning as well.

* 2: RAN2 confirm that the slice group ID size is set to 8 bits.

*Proposal 3: There is no need to introduce additional signalling or enhancements to support RAN sharing for slice based cell reselection and RACH.*

- MTK agrees with P3 and thinks gNB can handle this. Nokia thinks that if operators can agree on slice group harmonization, we don't need anything but if not, we need something else.

- Ericsson thinks we need to support RAN sharing and something is needed. Vodafone thinks it's not possible for operators to harmonize their allocations.

* 4: Change the condition of slice based cell reselection in TS 38.304 to “If UE supports slice-based cell reselection and UE has received slice group priority information from NAS, UE shall derive re-selection priorities according to clause 5.2.4.1.”.

[R2-2204603](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204603.zip) Discussion on slice group handling NTT DOCOMO INC. discussion Rel-17

*Observation1: SA2 decided that the mapping of slice to the slice group is per TA.*

*Observation2 : With current FreqPriorityListSlicing signaling design, it is difficult for UE to be aware of the slice group information supported in neighbor TA(s).*

*Proposal1: Include TAC list in FreqPriorityListSlicing to ensure UE to be aware of supported slices group info in neighbor TA(s).*

[R2-2205973](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205973.zip) RAN Slicing enhancements in shared RAN Ericsson discussion Rel-17 NR\_slice-Core

*Proposal 1 RAN slicing enhancements should support RAN sharing.*

*Proposal 2 RAN2 to discuss and agree whether RAN-sharing solution for cell re-selection based on dedicated signalling or SIB signalling shall be used.*

*Proposal 3 For Slice-specific RA in RAN sharing, use sliceGroupID together with the index of the PLMN selected by the UE as signalled in RRCSetupComplete.*

[R2-2205569](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205569.zip) Discussion on the slice group and slice priority ZTE corporation, Sanechips discussion Rel-17 NR\_slice-Core

*Proposal 1: The mapping between NSAG and S-NSSAIs should be consistent in all the TAs identified by the TAIs broadcast in the serving cell’s SIB1 for RAN sharing case.*

*Proposal 2: The gNB exchanges the supported slices through Xn interface and the serving gNB map the slices supported by neighbor cells to NSAG based on the mapping rule in the current TA and broadcast to UE. UE interpret the NSAG of neighbor cells based on the mapping between NSAG and the S-NSSAIs in the current TA.*

*Proposal 3: An LS is sent to SA2 to inform our decision on the slice grouping with RAN3 in CC [3].*

*Proposal 4: UE AS receive the NSAG and their priorities from NAS layer as input to cell reselection.*

[R2-2205570](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205570.zip) draft LS on slice group ZTE corporation, Sanechips LS out Rel-17 NR\_slice-Core To:SA2 Cc:RAN3

[R2-2205576](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205576.zip) Remaining open points on slice group and slice priority Samsung R&D Institute UK discussion

*Observation 1: Slice group granularity is assumed per TA. FFS on how to resolve TA boundaries.*

*Observation 2: Slice group configuration should be homogenous among multiple TAs in the same RA.*

*Observation 3: FFS on granularity of slice group and UE knowledge of slice priority.*

*Observation 4: There is possible misalignment between RAN2 and SA2 on the issue of slice ownership to different slices groups in multiple TAs.*

*Proposal 1: RAN2 to confirm its WA that the slice group granularity is per TA.*

*Proposal 2: RAN2 to agree that the TAs in which the slice group is applicable are provided along with the slice group from AMF to UE via NAS signalling.*

*Proposal 3: RAN2 to agree that the UE considers that frequency priority and slice availability is based on the slice group mapped to serving cell's TAC.*

*Proposal 4: RAN2 to agree that the granularity of the slice priority for cell reselection is per slice group.*

*Proposal 5: RAN2 to revisit its assumption on slice ownership per slice group in multiple TAs in light of latest agreement in SA2#150 on the same issue.*

*Proposal 6: SIB16 can include the slice information list based on the slice group associated with the current cell’s TAC.*

*Proposal 7: When slice information is included in RRC Release, if TAI specific slice groups are available, the gNB may include per-TA slice information list for such slice groups.*

[R2-2205587](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205587.zip) Text Proposal for corrections for TS 38.304 on RAN slicing Samsung R&D Institute UK discussion

[R2-2205464](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205464.zip) Discussion on the impacts of LS from SA2 on RAN2 CATT discussion Rel-17 NR\_slice-Core

*Proposal 1: Information indicating whether slice group feature is supported for PLMN can be signalled in SIB16.*

*Proposal 2: RAN2 to down select the options supporting indication in SIB16 to indicate which PLMN supports slice group features:*

*Option 1: PLMN list NOT supporting slice groups is broadcasted in SIB16.*

*Option 2: PLMN list supporting slice groups is broadcasted in SIB16.*

[R2-2205662](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205662.zip) Discussion on SA2 LS on RAN Slicing Apple discussion Rel-17 NR\_slice-Core

*Proposal 1: RAN2 to discuss whether to align with SA2 intention, to add the PLMN index into slice group configuration.*

*Proposal 2: If RAN2 to support network sharing with PLMN differentiation, both slice based cell reselection and slice based RACH configuration should be considered.*

*Proposal 3: In ASN.1 design, suggest to apply per PLMN configuration on NSAG(s).*

*Proposal 4: When gNB provides the allowed neighbor cell list for one slice group associated with valid TAI(s), only the cells belonging to the valid TAI(s) are configured as allowed cells.*

[R2-2205079](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205079.zip) Discussion on Slice Information Huawei, HiSilicon discussion Rel-17 NR\_slice-Core

*Observation 1: In order to let UE be aware of the supported slice groups for neighbour cells at TA boundary area, the network can provide the valid TA information relating to slice groups.*

*Proposal 1: It is proposed RAN2 to discuss the following two solutions:*

* Explicit Solution: The gNB provides the association of slice group IDs with their valid TACs in the slice group specific cell reselection information. It needs ASN.1 updates*

* Implicit Solution: The OAM ensures that the slice group IDs are different among the adjacent TAs. It may not need any ASN.1 impacts*

*Proposal 2: PCI lists can be included for the current frequency.*

*Proposal 3: For a UE supporting slice group specific cell reselection, when it UE receives RRCRelease message:*

* For case (b) or case (c), if it includes the dedicated legacy priorities, the UE shall only ignore all the priorities in SIB4 but still consider the slice group specific cell reselection priorities in new SIB*

* For case (d) or case (f), if it includes the dedicated slice group specific cell reselection priorities, the UE shall only ignore all the priorities in new SIB but still consider the legacy priorities in SIB4*

*Proposal 4: No need to provide the PCI lists in RRCRelease message.*

*Proposal 5: It is proposed that the slice group specific cell reselection priorities in RRCRelease are only associated with the inter-frequencies.*

[R2-2206336](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206336.zip) Comparison of slice group solutions Ericsson discussion Rel-17 NR\_slice-Core Late

By Web Conf (2nd Week Tuesday) (1)

Providing slice information in RRCRelease:

[R2-2205495](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205495.zip) Considerations on reselection information priorities Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_slice-Core

*Observation 1: In the current specification the cell reselection priorities provided to the UE in RRCRelease have priority over priorities provided in SIB messages.*

*Observation 2: The current specification does not require to merge the cell reselection priorities received in RRCRelease with priorities received in SIB messages.*

*Proposal 1: If the RRCRelease message contains any type of cell reselection priorities then the UE should only consider the cell reselection priorities received in RRCRelease and ignore any type of cell reselection priorities received in SIB messages.*

- Lenovo points out this is also discussed in [242] but needs online discussion anyway. Doesn't agree since legacy and slice-specific reselection are different. Lenovo thinks different areas can have different reselection priorities.

- Vodafone thinks the area where slice is deployed is at least TA-wide. so thinks we should keep the existing principle and agrees with P1. CMCC thinks we should allow some fallback if slice-specific cell reselection fails. OPPO agrees.

- LGE, ZTE, Intel, Samsung agrees with P1. LGE thinks we should not generating any more complicated scenarios that can be generated by the merging/combing, if we want to complete this WI.

- Intel thinks dedicated priorities always take priority over broadcast. Up to network whether to do this. NEC agrees and thinks this is a good baseline. thinks we should allow NW to configure both legacy and slice-specific reselection priorities in RRCRelease.

* 1: If the RRCRelease message contains any type of cell reselection priorities then the UE should only consider the cell reselection priorities received in RRCRelease and ignore any type of cell reselection priorities received in SIB messages.
* RRCRelease can contain both legacy and slice-specific reselection priorities
* No PCI - list in the RRCRelease message for slice-specific reselection priorities in Rel-17 (similar as in legacy). UE uses PCI list from SIB (if received).

- Huawei thinks also these are under [240]. There are two candidate solutions: either the list is allowed or disallowed.

- Lenovo wonders Is PCI list in RRC Release supposed to be UE specific? Chair thinks we do this often when dedicated overrides broadcast.

- Vodafone wonders why the PCI list is needed? Nokia explains this way UE needs not mix information from dedicated and broadcast. And UE may get more information than from SIB, so PCI lists from SIB may not be applicable to those. Ericsson thinks we can use this to mirror the TA border, same as when we introduced them in SIB.

- Apple thinks the PCI list in RRCRelease doesn't work in all scenarios. Samsung thinks that it's difficult for network to provide PCI list always.

- Qualcomm wonders how no PCI list works in RAN sharing. Samsung thinks already now UE can have frequencies in RRCRelease that it's not required to measure.

*Proposal 3: If the above proposals are agreed then endorse the text proposal for clause 5.2.4.1 of 38.304 of Annex A.*

[R2-2205543](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205543.zip) Remaining open issue on interaction with legacy dedicated priority and broadcast slice based cell reselection Intel Corporation discussion Rel-17 NR\_slice-Core

[R2-2205151](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205151.zip) Clarification on slice-based cell reselection based on SA2 conclusion Qualcomm Incorporated discussion NR\_slice-Core

[R2-2205157](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205157.zip) Clarification on slice-based cell re-selection based on SA2 conclusion Qualcomm Incorporated draftCR Rel-17 38.304 17.0.0 NR\_slice-Core

[R2-2205974](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205974.zip) Discussion and way forward on Slice based Cell re-selection Ericsson discussion Rel-17 NR\_slice-Core

[R2-2205616](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205616.zip) Resolving FFS on slice Information in RRC Release and SIB Samsung discussion

[R2-2205465](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205465.zip) Consideration on issues of RRCRelease CATT discussion Rel-17 NR\_slice-Core

[R2-2204554](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204554.zip) Considerations on the slice info configured by RRCRelease for cell reselection Beijing Xiaomi Software Tech discussion Rel-17

[R2-2204762](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204762.zip) Open issues on slice-specific cell reselection OPPO discussion Rel-17 NR\_slice-Core

[R2-2205663](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205663.zip) Discussion on leftover issues in RAN slicing Apple discussion Rel-17 NR\_slice-Core

[R2-2205693](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205693.zip) Remaining FFS points in RAN Slicing Lenovo discussion NR\_slice-Core

[R2-2205737](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205737.zip) Information Provided in RRCRelease (partially relevant to RIL#H502) NEC Telecom MODUS Ltd. discussion

By Web Conf (2nd Week CB) (1)

(Equal) Priority handling for slice-specific reselection:

[R2-2205124](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205124.zip) Equal priority cases for Slice Specific Cell Reselection Kyocera discussion

*Proposal 1 In case of frequencies with equal slice specific cell reselection priority in a same slice/slice group, RAN2 should agree to follow the legacy behaviour as in section 5.2.4.6 (“Intra-frequency and equal priority inter-frequency Cell Reselection criteria”) of TS 38.304. It doesn’t require any specification changes.*

*Proposal 2 In case of the same slice specific frequency priority in multiple slices/slice groups which have an equal priority, RAN2 should agree to follow the legacy behaviour as in section 5.2.4.6 (“Intra-frequency and equal priority inter-frequency Cell Reselection criteria”) of TS 38.304. It doesn’t require any specification change.*

*Proposal 3 In the case of a frequency with different slice specific frequency priorities in multiple slices/slice groups with the same slice group priority, RAN2 should agree that the highest slice specific cell reselection is applied to this frequency.*

*Proposal 4 RAN2 should agree the text proposal for TS 38.304 as above.*

[R2-2204571](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204571.zip) Slice based cell reselection priorities handling for equal priority slice groups Beijing Xiaomi Software Tech discussion Rel-17

[R2-2204761](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204761.zip) Clarification on reselection priorities for slice-based cell reselection OPPO, Xiaomi discussion Rel-17 NR\_slice-Core

[R2-2204746](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204746.zip) Discussion on remaining issues for slice based cell reselection Spreadtrum Communications discussion Rel-17

[R2-2205466](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205466.zip) The impact of re-sorting on RRM requirement CATT discussion Rel-17 NR\_slice-Core

[R2-2205080](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205080.zip) Discussion on UE behaviours during slice group specific cell reselection Huawei, HiSilicon discussion Rel-17 NR\_slice-Core

By Email [240] (7)

*RIL-related contributions:*

[R2-2205494](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205494.zip) Clarifications on slice groups and other corrections [N031, N032] Nokia, Nokia Shanghai Bell draftCR Rel-17 38.331 17.0.0 NR\_slice-Core

[R2-2205468](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205468.zip) [C154] Create a new IE for SliceGroupID CATT discussion Rel-17 NR\_slice-Core Late

[R2-2205568](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205568.zip) [Z325] Discussion on the FreqPriorityListNRSlicing ZTE corporation, Sanechips discussion Rel-17 NR\_slice-Core

[R2-2205615](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205615.zip) [B204][B205][B206] Some RRC corrections Lenovo discussion NR\_slice-Core

[R2-2205619](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205619.zip) [S254] Correction for FreqPriorityNRSlicing Samsung discussion

[R2-2205972](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205972.zip) [E140] Freq list in SIB16 for slicing Ericsson discussion Rel-17 NR\_slice-Core Late

[R2-2206097](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206097.zip) [H505] Slice cell list in RRCRelease message Huawei, HiSilicon discussion Rel-17 NR\_slice-Core

By Email [241] (3)

[R2-2205975](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205975.zip) Resolving open issues Ericsson draftCR Rel-17 38.300 17.0.0 NR\_slice-Core

[R2-2205492](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205492.zip) Clarifications on slice groups and other corrections Nokia, Nokia Shanghai Bell draftCR Rel-17 38.300 17.0.0 NR\_slice-Core

[R2-2205077](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205077.zip) Corrections on TS 38.300 for RAN Slicing Huawei, HiSilicon CR Rel-17 38.300 17.0.0 0454 - F NR\_slice-Core

By Email [242] (7)

[R2-2205493](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205493.zip) Clarifications on slice groups and other corrections Nokia, Nokia Shanghai Bell draftCR Rel-17 38.304 17.0.0 NR\_slice-Core

[R2-2204583](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204583.zip) Corrections on the slice based cell reselection priorites Beijing Xiaomi Software Tech draftCR Rel-17 38.304 17.0.0 F NR\_slice-Core

[R2-2204590](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204590.zip) Corrections on slice based cell reselection configured by RRCRelease Beijing Xiaomi Software Tech draftCR Rel-17 38.304 17.0.0 F NR\_slice-Core

[R2-2205078](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205078.zip) Corrections on TS 38.304 for RAN Slicing Huawei, HiSilicon CR Rel-17 38.304 17.0.0 0241 - F NR\_slice-Core

[R2-2205467](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205467.zip) Draft CR to TS 38.304 on the remaining RRC Open issues for slicing CATT draftCR Rel-17 38.304 17.0.0 F NR\_slice-Core

[R2-2205739](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205739.zip) CR to 38.304 Clarification on slice-specific cell reselection NEC Telecom MODUS Ltd. CR Rel-17 38.304 17.0.0 0246 - F NR\_slice-Core

[R2-2205976](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205976.zip) Resolving open issues Ericsson draftCR Rel-17 38.304 17.0.0 NR\_slice-Core

Email discussion [242]

* [AT118-e][242][Slicing] Finalizing IDLE mode for RAN slicing (NEC)

      Scope: Discuss CRs for TS38.304 and provide final CR based on meeting decisions.

 Intended outcome: Discussion report [R2-2206185](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206185.zip) and agreeable CR in [R2-2206174](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206174.zip).

 Deadline: Deadline 5

By Email: Outcome of [242] (1)

*[242] report and outcome CR:*

[R2-2206185](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206185.zip) Report of [AT118-e][242][Slicing] Finalizing IDLE mode for RAN slicing (NEC) NEC discussion Rel-17 NR\_slice-Core Late

* [242] 1: use "NSAG" to replace slice group, but keep using slice-based cell reselection, slice specific cell reselection information.
* [242] 2: clarify that the recalculated cell reselection priority for a frequency is used up-to 300 seconds or until NSAG information received from NAS is changed
* [242] 3: add text to clarify that UE consider all cells on the frequency supports the slice group if neither excluded not allowed PCI list is provided
* [242] 4: update TS38.304 to align the field names in TS38.331 by taking into account of the newly update
* [242] 5: remove the NOTE6 in section 5.2.4.1, to enable network to configure both legacy and slice-group specific cell reselection priority in *RRCRelease* message
* [242] Reflect also following (online) agreements relevant to the discussion in the final CR in [R2-2206174](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206174.zip):

*4: Change the condition of slice based cell reselection in TS 38.304 to “If UE supports slice-based cell reselection and UE has received slice group priority information from NAS, UE shall derive re-selection priorities according to clause 5.2.4.1.”.*

*1: If the RRCRelease message contains any type of cell reselection priorities then the UE should only consider the cell reselection priorities received in RRCRelease and ignore any type of cell reselection priorities received in SIB messages.*

*RRCRelease can contain both legacy and slice-specific reselection priorities*

*No PCI - list in the RRCRelease message for slice-specific reselection priorities in Rel-17 (similar as in legacy). UE uses PCI list from SIB (if received).*

[R2-2206174](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206174.zip) CR to 38.304 Clarification on slice-specific cell reselection NEC Telecom MODUS Ltd. CR Rel-17 38.304 17.0.0 0246 1 F NR\_slice-Core [R2-2205739](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205739.zip) Late

* [242] Revised in [R2-2206373](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206373.zip)

[R2-2206373](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206373.zip) CR to 38.304 Clarification on slice-specific cell reselection NEC Telecom MODUS Ltd. CR Rel-17 38.304 17.0.0 0246 2 F NR\_slice-Core [R2-2206174](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206174.zip) Late

* [242] Agreed

### 6.8.3 RACH

Including discussion based on remaining open issues for RAN slicing-specific RACH prioritization that are not discussed as part of the common RACH prioritization agenda (if any)

NOTE: The common discussion on Rel-17 RACH partitioning will be discussed under AI 6.18. This AI will only consider RACH partitioning from slicing perspective.

By Email [243] (3)

[R2-2204763](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204763.zip) Open issues on slice-specific RACH OPPO discussion Rel-17 NR\_slice-Core

*Proposal 1 No need to enhance the RACH procedure or configuration for RACH sharing.*

*Proposal 2 No extra configuration restriction for RA prioritization and RA partitioning.*

*Proposal 3 The exact value of maxSliceInfo-r17 is 8 or 16.*

[R2-2205081](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205081.zip) Discussion on slice group specific RACH Huawei, HiSilicon discussion Rel-17 NR\_slice-Core

*Proposal 1: No need to introduce PLMN specific RACH configuration in Rel-17.*

*Proposal 2: It is proposed that the value of maxSliceInfo-r17 could be 8 or 16, 8 is more preferred.*

*Proposal 3: When RA partition and RA prioritization work independently, if a slice group is only configured with slice specific RA prioritization, it will use common RACH resources.*

*Proposal 4: When RA partitions for legacy 4-step RA and for R17 feature/feature combination are both configured with “ra-PrioritizationForSlicing-r17”, it is clear to only configure “ra-PrioritizationForSlicing-r17” in RACH-ConfigCommon.*

*Proposal 5: In the case that slice-specific RA fallback is from 2-step slice-specific RA to 4-step slice-specific RA and 2-step slice-specific RA is configured with preambles group B, RA preambles group B should be configured for 4-step slice-specific RA.*

[R2-2205365](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205365.zip) [X802 X804] Considerations on the slice based RA prioritization parameters configuration Beijing Xiaomi Software Tech discussion Rel-17

By Email [243] (2)

*MAC aspects of slice-specific RACH prioritization:*

[R2-2205612](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205612.zip) Clarification on RACH configuration for slice Samsung discussion Rel-17 NR\_slice-Core

*Observation 1. To avoid UE operation be confused in slice specific RACH configuration selection, one slice group should be associated with one RACH configuration.*

*Observation 2. The case that the NOTE in 5.1.1a in TS 38.321 is to specify can be covered by the normative procedures in the same clause.*

*Observation 3. No additional procedure change is needed with consideration of RAN slicing in 5.1.1 and 5.1.1a in TS 38.321.*

*Based on the above observation, RAN2 is requested to discuss and capture the following proposal:*

*Proposal 1. RAN2 is asked to confirm that one to one mapping of a slice group and its RACH configuration should be clarified in IE FeatureCombination and to accept the proposed TP in Annex A.*

*Proposal 2. RAN2 is asked to remove the NOTE in clause 5.1.1a in TS 38.321 as the proposed TP in Annex B.*

*Proposal 3. RAN2 is asked to remove the Editor’s Note in clause 5.1.1a in TS 38.321 as the proposed TP in Annex B.*

[R2-2204873](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204873.zip) Correction to RA initialization for slicing Nokia, Nokia Shanghai Bell CR Rel-17 38.321 17.0.0 1239 - F NR\_slice-Core

*1. Move the check enableRA-PrioritizationForSlicing flag before checking Slice Group Identity and Access Identities provision to MAC*

*2. Replace Slice Group Id provision with generic association of the Slice Groups with RA procedure for which the procedure was initiated*

*3. Paremeters and variables names changed to italic*

Not Treated (not essential or no Stage-3 details) (1)

[R2-2204785](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204785.zip) Consideration on slice specific RACH and another issue Purple Mountain Laboratories discussion

Email discussion [243]

* [AT118-e][243][Slicing] Finalizing MAC for slice-specific RACH (Samsung)

      Scope: Discuss CRs for TS38.321 and determine which are agreeable. Can provide final CR based on meeting decisions.

 Intended outcome: Discussion report [R2-2206186](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206186.zip) and agreeable CR in [R2-2206175](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206175.zip).

 Deadline: Deadline 3 (report) / Deadline 5 (CR)

*[243] report and outcome CR:*

[R2-2206186](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206186.zip) Report of [AT118-e][243][Slicing] Finalizing MAC for slice-specific RACH (Samsung) Samsung discussion Rel-17 NR\_slice-Core Late

* [243] 1. No MAC specification update is necessary for RAN sharing.
* [243] 2. RA preambles group B should be configured for 4-step slice-specific RA in the case that slice-specific RA fallback is from 2-step slice-specific RA to 4-step slice-specific RA and 2-step slice-specific RA is configured with preambles group B. No MAC specification update is necessary for this principle.
* [243] 3. No additional specification change is needed for one to one mapping of a slice group and its RACH configuration.
* [243] 4. The "else"-procedure is applied for only the case “*enableRA-PrioritizationForSlicing* is set to false” in MAC specification.
* [243] 5. Remove Editor’s Note in clause 5.1.1a in TS 38.321.
* [243] 6. RAN2 confirms that both slice group and Access Identity should be considered when the *enableRA-PrioritizationForSlicing* flag is set. No MAC specification change is needed.
* [243] 7. RAN2 confirms that slice group identity can be provisioned to MAC layer as UE implementation.
* [243] 8. RAN2 agrees to change ‘slice group’ to ‘NSAG’ in the MAC specification.

[R2-2206175](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206175.zip) Corrections to 38.321 on RAN slicing Samsung CR Rel-17 38.321 17.0.0 1292 - F NR\_slice-Core

* ?? [243] Agreed

### 6.8.4 UE capabilities

Please follow the general guidance on UE capabilities under 2.4 - only corrections related to RAN2 parts are discussed in WI-specific agenda. Work for capabilities from RAN1/4 is done under AI 6.0.2

Including essential corrections to UE capabilities related to RAN2-defined features for RAN slicing. Proposals that do not provide Stage-3 details will not be treated. Please use draft CRs for 38.331 and 38.306 to help with CR merging.

By Web Conf (2nd Week Tuesday) (1)

[R2-2205546](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205546.zip) Remaining open issues on UE Capability for slice based cell reselection Intel Corporation discussion Rel-17 NR\_slice-Core

*Observation #1: It is useful for network to know whether UE supports broadcast slice based cell reselection if network is allowed to provide dedicated legacy priority.*

*Observation #2: Network needs to know whether UE supports broadcast slice based cell reselection if network is not allowed to provide dedicated legacy priority.*

- Ericsson, NEC, Samsung , CMCC , Nokia, Lenovo, Vodafone, ZTE, LGE support.

* 1: UE indicates its support of broadcast slice based cell reselection to the RAN using AS capability signalling.
* 2: A UE supporting broadcast slice based cell reselection priorities shall also support dedicated signalling of slice reselection information.
* 3: The currently agreed capability bit for dedicated signalling of slice reselection information is extended to cover both broadcast slice reselection information and dedicated signalling of slice reselection information.
* 4: Agree the TP in [R2-2205546](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205546.zip), draftCR to be endorsed in [R2-2206366](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206366.zip).

[R2-2206366](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206366.zip) Corrections to RAN slicing UE capabilities Intel draftCR Rel-17 38.306 17.0.0 NR\_slice-Core

* Endorsed (unseen), to be merged to the UE capability mega-CR

[R2-2205977](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205977.zip) UE Capabilities for Slice-based Cell re-selection and RA Ericsson discussion Rel-17NR\_slice-Core

## 6.20 Extending NR operation to 71GHz

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

Tdoc Limitation: 4 tdocs

Contributions should illustrate the Stage-3 details of the proposals (e.g. in an Annex containing TP against the running CRs). If a contribution does not provide TP, it may be deprioritized.

This WI has approved exception sheet in RP-220991 but no topics are related to RAN2 work.

### 6.20.1 Organizational

Including LSs and any rapporteur inputs (e.g. from ASN.1 ad-hoc meeting).

By Email [210] (3)

RRC corrections:

[R2-2205188](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205188.zip) Correction of RRC CR for 71 GHz Ericsson CR Rel-17 38.331 17.0.0 3055 - F NR\_ext\_to\_71GHz-Core Late

[R2-2205189](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205189.zip) RIL issues of RRC CR correction for 71 GHz Ericsson other Rel-17 NR\_ext\_to\_71GHz-Core Late

By Email [211] (3)

Stage-2 corrections:

[R2-2204852](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204852.zip) Correction of RACH preamble lengths for FR2-2 Qualcomm Incorporated CR Rel-17 38.300 17.0.0 0447 - F NR\_ext\_to\_71GHz-Core

* [211] Revised in [R2-2206178](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206178.zip)

[R2-2205195](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205195.zip) Correction of 38.300 Ericsson draftCR Rel-17 38.300 17.0.0 F NR\_ext\_to\_71GHz-Core

*(moved from 6.20.3)*

* [211] Not pursued (covered by [R2-2206178](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206178.zip))

[R2-2204869](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204869.zip) Correction to Stage 2 spec for Ext71GHz Huawei, HiSilicon CR Rel-17 38.300 17.0.0 0448 - F NR\_ext\_to\_71GHz-Core

*(moved from 6.20.2)*

* [211] Not pursued (covered by [R2-2206178](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206178.zip))

Email discussions ([210])

* [AT118-e][210][71 GHz] RRC corrections (Ericsson)

 Scope: Discuss RRC RIL for 71 GHz and provide proposals for resolution

 Intended outcome: Discussion report in [R2-2206176](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206176.zip) (for online discussion) and final RRC CR in [R2-2206177](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206177.zip).

 Deadline: Deadline 3

By Web Conf (2nd Week Tuesday) (1)

*[210] report and outcome CR:*

[R2-2206176](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206176.zip) Report of [AT118-e][210][71 GHz] RRC corrections (Ericsson) Ericsson discussion Rel-17 NR\_ext\_to\_71GHz-Core Late

**Bulk agreement** *[Easy proposals]*

* 1 Changes of RIL E134 captured in [R2-2205192](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205192.zip) for supporting SCS 120, 480 and 960 kHz is pending for RAN1 confirmation. Coordinate with outcome of [025].
* 5 Not adopt changes of RIL Z452 captured in [R2-2205554](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205554.zip) in the RRC rapporteur CR ([R2-2206177](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206177.zip)).
* 6 To adopt changes of RIL E801 captured in [R2-2205190](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205190.zip) in the LTE RRC CR ([R2-2206364](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206364.zip)) with the wording change“and->or”

By Web Conf (2nd Week CB): Rest of Outcome of [210] (1)

**Online discussion** *[For discussion]*

*Proposal 2 To discuss the following options for RIL E135 To adopt changes of RIL E135 captured in* [*R2-2205193*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205193.zip) *in the RRC rapporteur CR (*[*R2-2206177*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206177.zip)*) with the following update*

*a. Option 1: changes in* [*R2-2205193*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205193.zip) *with the following update*

*i. Add the need code R for si-WindowLength*

*ii. Exclude extended values for SCS 960 kHz*

*iii. Update field description to capture that the new values are only applicable to SCS 480 kHz, when new values are configured, UE ignores the legacy values.*

*b. Option 2: Directly extend the value for SCS 480 kHz in si-WindowLength, i.e.,*

*i. si-WindowLength ENUMERATED {s5, s10, s20, s40, s80, s160, s320, s640, s1280, s2560-v17xy, s5120-v17xy}*

*Proposal 3 To discuss whether to adopt changes of RIL E136 captured in* [*R2-2205194*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205194.zip) *in the RRC rapporteur CR (*[*R2-2206177*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206177.zip)*) (6/7)*

*Proposal 4 To discuss the following options for RIL Z451*

*a. Option 1: changes captured in* [*R2-2205554*](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205554.zip)

*b. Option 2: Update the description of the field firstPDCCH-MonitoringOccasionOfPO to include the text i.e., SCS 480 kHz uses the same value range as SCS 120 kHz for all values of N.*

[R2-2206177](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206177.zip) Correction of RRC CR for 71 GHz Ericsson CR Rel-17 38.331 17.0.0 3055 1 F NR\_ext\_to\_71GHz-Core [R2-2205188](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205188.zip) Late

[R2-2206364](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206364.zip) LTE RRC Corrections to 71 GHz Ericsson CR Rel-17 36.331 17.0.0 4820 - F NR\_ext\_to\_71GHz-Core Late

Email discussions ([211])

* [AT118-e][211][71 GHz] Stage-2 corrections for 71 GHz (Qualcomm)

 Scope: Discuss Stage-2 corrections for 71 GHz and provide proposals for resolution

      Scope: Finalize Stage-2 CR for RAN slicing based on meeting decisions.

 Intended outcome: Agreeable Stage-2 CR in [R2-2206178](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206178.zip).

 Deadline: Deadline 5

By Email: Outcome of [211] (1)

[R2-2206374](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206374.zip) Report of [AT118-e][211][71 GHz] Stage-2 corrections for 71 GHz (Qualcomm) Qualcomm discussion Rel-17 NR\_ext\_to\_71GHz-Core Late

* [211] 1: Agree to change in [R2-2204852](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204852.zip).
* [211] 2: Agree to revised [R2-2204869](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204869.zip) with the following changes: "The gNB performs channel access mode procedures as described in TS 37.213 [37]. The gNB and the UE may apply Listen-Before-Talk (LBT) before performing a transmission on a cell configured with shared spectrum channel access. When LBT is applied, the transmitter listens to/senses the channel to determine whether the channel is free or busy and performs transmission only if the channel is sensed free. "
* [211] 3: Agree to [R2-2206448](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206448.zip) which introduces the following changes for Rel-16 in 38.300 5.6.1: "The gNB performs channel access mode procedures as described in TS 37.213 [37]. The gNB and the UE may apply Listen-Before-Talk (LBT) before performing a transmission on a cell configured with shared spectrum channel access. When LBT is applied, the transmitter listens to/senses the channel to determine whether the channel is free or busy and performs transmission only if the channel is sensed free."

*[211] outcome CRs:*

[R2-2206178](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206178.zip) Stage-2 corrections for 71 GHz Qualcomm Incorporated CR Rel-17 38.300 17.0.0 0447 1 F NR\_unlic-Core, NR\_ext\_to\_71GHz-Core [R2-2204852](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204852.zip)

* [211] Agreed

[R2-2206448](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206448.zip) Correction of LBT access mode Qualcomm Incorporated CR Rel-17 38.300 16.0.0 0471 - F NR\_unlic-Core

* [211] Agreed (no Cat A CR since [R2-2206178](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206178.zip) handles the equivalent same change)

### 6.20.2 Control plane corrections

Including essential control plane corrections to NR operation up to 71GHz. Proposals that do not provide Stage-3 details will not be treated.

By Web Conf (2nd Week CB) (1)

[R2-2205191](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205191.zip) Correction on RIL issue E049 Ericsson draftCR Rel-17 38.331 17.0.0 F NR\_ext\_to\_71GHz-Core Late

By Email [210] (1)

PxCCH and TDRA:

[R2-2205554](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205554.zip) Control plane issues for NR operation above 71 GHz ZTE Corporation, Sanechips discussion Rel-17

* [210] Do not adopt changes of RIL Z452 captured in [R2-2205554](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205554.zip) in the RRC rapporteur CR ([R2-2206177](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206177.zip)).

By Email [210] (5)

*Overheating assistance:*

[R2-2205051](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205051.zip) [E048] Overheating assistance information for FR2-2 in (NG)EN-DC Samsung discussion Rel-17 NR\_ext\_to\_71GHz-Core

[R2-2204872](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204872.zip) Discussion on overheating assistance report for SCG in EN-DC Huawei, HiSilicon discussion Rel-17 NR\_ext\_to\_71GHz-Core

[R2-2205052](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205052.zip) [E048] Overheating information for FR2-2 in (NG)EN-DC (38.331) Samsung draftCR Rel-17 38.331 17.0.0 F NR\_ext\_to\_71GHz-Core

[R2-2205053](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205053.zip) [E801] Overheating information for FR2-2 in (NG)EN-DC (36.331) Samsung draftCR Rel-17 36.331 17.0.0 F NR\_ext\_to\_71GHz-Core

* All of above are covered by [210] outcome

[R2-2205190](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205190.zip) Correction on RIL issue E801 Ericsson draftCR Rel-17 36.331 17.0.0 F NR\_ext\_to\_71GHz-Core Late

* [210] Adopt changes of RIL E801 captured in [R2-2205190](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205190.zip) in the LTE RRC CR ([R2-2206364](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206364.zip)) with the wording change“and->or”

By Email [210] (3)

*Miscellaneous RIL-related contributions:*

[R2-2204871](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204871.zip) Correction to periodicityAndOffset for Ext 71GHz [H707] Huawei, HiSilicon CR Rel-17 38.331 17.0.0 3008 - F NR\_ext\_to\_71GHz-Core

[R2-2205050](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205050.zip) [S626] Clarification on drx-HARQ-RTT-TimerDL/UL Samsung discussion Rel-17 NR\_ext\_to\_71GHz-Core

By Email [210] (4)

*RIL-related issues:*

[R2-2205192](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205192.zip) Correction on RIL issue E134 Ericsson draftCR Rel-17 38.331 17.0.0 F NR\_ext\_to\_71GHz-Core Late

* [210] Changes of RIL E134 captured in [R2-2205192](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205192.zip) for supporting SCS 120, 480 and 960 kHz is pending for RAN1 confirmation. Coordinate with outcome of [025].

[R2-2205193](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205193.zip) Correction on RIL issue E135 Ericsson draftCR Rel-17 38.331 17.0.0 F NR\_ext\_to\_71GHz-Core Late

[R2-2205194](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205194.zip) Correction on RIL issue E136 Ericsson draftCR Rel-17 38.331 17.0.0 F NR\_ext\_to\_71GHz-Core Late

### 6.20.3 User plane corrections

Including essential user plane corrections to NR operation up to 71GHz. Proposals that do not provide Stage-3 details will not be treated.

By Web Conf (2nd Week Tuesday) (1)

LBT issues:

[R2-2205555](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205555.zip) User Plane Issues for NR operation above 71 GHz ZTE Corporation, Sanechips discussion Rel-17

*Proposal 1: No changes are required in MAC to specify the handling of Contention Exempt Short Control Signaling rules applying to Msg1 and MSGA.*

- QC thinks we already agreed to this. Huawei, LGE, Intel, Apple, Ericsson, Samsung agrees.

* No changes are required in MAC to specify the handling of Contention Exempt Short Control Signaling rules applying to Msg1 and MSGA.

*Proposal 2: In order to define guard symbols for SCS of 480kHz and 960kHz, LS should be sent to RAN1 and RAN4 to determine them.*

- QC thinks there may be other changes too. Huawei thinks it's not clear if FR2-2 is applicable to IAB. LGE thinks we could check with RAN1/4. Intel thinks it should intiaite by other WGs. There is no need to send a LS.

* If RAN1/4 defines guard symbols for SCS of 480kHz and 960kHz, RAN2 will act accordingly in our specifications. Can be triggered in the respective groups.

[R2-2205239](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205239.zip) Discussion and related TP on necessary update of Rel-16 LBT CATT discussion Rel-17 NR\_ext\_to\_71GHz-Core

### 6.20.4 UE capabilities

Please follow the general guidance on UE capabilities under 2.4 - only corrections related to RAN2 parts are discussed in WI-specific agenda. Work for capabilities from RAN1/4 is done under AI 6.0.2

Including essential corrections to UE capabilities related to RAN2-defined features for NR operation up to 71GHz. Proposals that do not provide Stage-3 details will not be treated. Please use draft CRs for 38.331 and 38.306 to help with CR merging.

By Email [212] (4)

[R2-2205792](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205792.zip) Remaining UE capabilities on NR operation for upto 71GHz Intel Corporation discussion Rel-17 NR\_ext\_to\_71GHz-Core

[R2-2204870](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204870.zip) Correction to 38.306 for Ext71GHz Huawei, HiSilicon CR Rel-17 38.306 17.0.0 0705 - F NR\_ext\_to\_71GHz-Core

* [212] Not pursued.

[R2-2205793](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205793.zip) Further updates for 71GHz UE capabilities (TS38.306) Intel Corporation draftCR Rel-17 38.306 17.0.0 B NR\_ext\_to\_71GHz-Core

[R2-2205794](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205794.zip) Further updates for 71GHz UE capabilities (TS38.331) Intel Corporation draftCR Rel-17 38.331 17.0.0 B NR\_ext\_to\_71GHz-Core

* [AT118-e][212][71 GHz] 71 GHz UE capability corrections (Intel)

 Scope: Discuss UE capability corrections for 71 GHz and provide proposals for resolution

 Intended outcome: Discussion report in [R2-2206179](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206179.zip) (for online discussion) and final draft CRs in [R2-2206180](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206180.zip) and [R2-2206181](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206181.zip).

 Deadline: Deadline 3

By Web Conf (2nd Week Tuesday): Outcome of [212] (1)

*[212] report and outcome CR:*

[R2-2206179](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206179.zip) Report of [AT118-e][212][71 GHz] 71 GHz UE capability corrections (Intel) Intel discussion Rel-17 LTE\_NR\_DC\_enh2-Core Late

* P1, P2, P3, P6 are agreed as per [R2-2206179](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206179.zip)
* P5: For the existing *channelBWs-UL/DL*, add sentence " This feature is applicable only for FR1 and FR2-1 band, otherwise it is absent." (no change to optionality column)

P4a

- Intel clarifies there were some late comments: 1) All CBWs for 120 kHz are mandatory (without signalling). Only supported optional CBW capabilities are indicated. 2) Larger bitmap would be better for future compatibility, and 3) Should RAN2 follow RAN4 feature list (i.e. separate capabilities for 480/960 kHz) or use existing RAN2 signalling (i.e. FR1/FR2-X differentiation).

Signalling structure:

- Ericsson raised the issue because it has caused issues due to additional CBWs being added. Intel thinks if we add something here it was not decided in RAN4.

- Apple prefers separate list. Intel thinks we can also add 120 kHz structure later, especially if we use larger bitmap. Huawei is fine with Intel suggestion. Ericsson still thinks it's better to indicate all supported CBWs.

* Keep separate structure but extend CBW bitmap size to 8. The bitmap only contains the optional CBWs.
* Can re-discuss how to handle mandatory CBW support bits in August RAN2 meeting (based on the agreed structure). This can include adding 120 kHz CBW capability entry.
* 7: Introduce further differentiation between FR2-1 and FR2-2 for drx-Adaptation-r16.  Define MinTimeGap-r17 for 120/480/960 kHz using SCS/120 \* {slots2, slots24} for value range.
* 9: CR [R2-2204870](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204870.zip) is not pursued.

[R2-2206180](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206180.zip) Further updates for 71GHz UE capabilities (TS38.306) Intel Corporation draftCR Rel-17 38.306 17.0.0 B NR\_ext\_to\_71GHz-Core [R2-2205793](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205793.zip)

* [212] Endorsed (to be merged to the capability mega-CR)

[R2-2206181](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206181.zip) Further updates for 71GHz UE capabilities (TS38.331) Intel Corporation draftCR Rel-17 38.331 17.0.0 B NR\_ext\_to\_71GHz-Core [R2-2205794](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205794.zip)

* [212] Endorsed (to be merged to the capability mega-CR)

# 7 Rel-17 EUTRA Work Items

## 7.0 EUTRA Rel-17 General

Tdoc Limitation: 10 tdocs

No documents should be submitted to 7.0. Please submit to 7.0.x

### 7.0.1 ASN.1 review

This agenda item may use a summary document (decision made based on ASN.1 ad-hoc meeting outcome, submitted review issues and submitted contributions).

Including ASN.1 review issues not handled during April ASN.1 ad-hoc meeting. Documents that relate to ASN.1 review should indicate the RIL number in the document title.

By Web Conf (1st Week Thursday) (3)

[R2-2205208](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205208.zip) Corrections on the general ASN.1 issues Samsung CR Rel-17 36.331 17.0.0 4794 - F TEI17 Late

- Samsung explains these have been reviewed and no comments were received.

- Lenovo thinks for DCCA, the *scg-State* handling in NR RRC has had clause renumbering that needs to be taken into account.

* Offline 203 (Samsung): Revised to take comments into account
* [203] Revised in [R2-2206190](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206190.zip)

[R2-2205209](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205209.zip) LTE Rel-17 ASN.1 Review, Class 0 issues Samsung discussion TEI17 Late

- Huawei wonders if this should cover WI-specific issues. Have these really been included for WI-specific cases? Do we update the document with the status of those?

* Covered by [R2-2205208](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205208.zip).
* Can provide revision of this under offline 203 (not high priority). WI rapporteurs should provide input to RRC rappporteur on whether the issues have been covered (i.e. update the status during the offline).
* [203] Revised in [R2-2206360](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206360.zip)

[R2-2205210](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205210.zip) LTE Rel-17 RIL List Samsung discussion TEI17 Late

* Offline 203 (Samsung): Capture final status of all review issues (including WI-specific ones)
* [203] Revised in [R2-2206361](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206361.zip)

By Web Conf (1st Week Thursday) (1)

[R2-2205866](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205866.zip) E806 - Avoiding SIB30, SIB31, and SIB32 in the old SI-scheduling list Ericsson discussion Rel-17

*Observation 1 The legacy list has instances of SIB-Type (without suffix).*

*Observation 2 SIB-Type (without suffix) has values for SIB30, SIB31, and SIB32.*

*Observation 3 The legacy list can schedule SIB30, SIB31, and SIB32, which we want to avoid.*

*Observation 4 The new "append-list" has instances of SIB-Type-v12j0.*

*Observation 5 SIB-Type-v12j0 has values for SIB30, SIB31, and SIB32.*

*Observation 6 The new "append-list" schedule SIB30, SIB31, and SIB32, which we want to allow.*

*Observation 7 The new Extend list has instances of SIB-Type-v12j0.*

*Observation 8 SIB-Type-v12j0 has values for SIB30, SIB31, and SIB32.*

*Observation 9 The new Extend list schedule SIB30, SIB31, and SIB32, which we want to allow.*

*Proposal 1 Adopt the change proposed by RIL E806, and remove SIB30, SIB31, and SIB32 from SIB-Type (without suffix)*

*Proposal 2 Capture in the spec that* *no new SIBs are added to the IE SIB-Type (without suffix).*

- Huawei explains we have put SIB25-29 to the old list so there could be legacy UEs in the field that do not support the legacy field. Thinks it's fine to just use the append and extend-lists so can agree with the Ericsson proposal. QC agrees but has some suggestions on how to capture the decision and in specifications. Nokia also agrees with P1 and thinks anything after SIB19 needs to be done with the append- or extend-list. Samsung also agrees with intention.

- Nokia thinks that anything after ellipsis should be not used in legacy list. So R16 SIB additions should never be used. DENSO clarifies those extensions were already there when the issue was discussed.

* 1 Adopt the change proposed by RIL E806, and remove SIB30, SIB31, and SIB32 from SIB-Type (without suffix).
* Can discuss offline 203 how to capture that no new SIBs are added to the IE SIB-Type (without suffix).

Email discussions ([203])

* [AT118-e][203][LTE] Rel-17 ASN.1 general corrections (Samsung)

 Scope: Capture final status of all RIL review issues (including WI-specific ones) and provide revision of CR [R2-2205208](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205208.zip) capturing comments and resolution of E806. Can also provide revision of class0 WI-specific issues based on WI rapporteur input to the discussion.

 Intended outcome: Agreeable CR in [R2-2206190](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206190.zip), RIL resolution in [R2-2206360](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206360.zip) and class0 resolutions in [R2-2206361](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206361.zip).

 Deadline: Deadline 5 (CR finalization)

### 7.0.2 L1 parameters and cross-WI RRC aspects

Including RRC details on L1 parameters for Rel-17 WIs that require discussion in the common session or are related to multiple Rel-17 WIs.

By Email [200] (1)

[R2-2204426](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204426.zip) LS on updated Rel-17 RAN1 UE features list for LTE (R1-2202924; contact: NTT DOCOMO, AT&T) RAN1 LS in Rel-17 NR\_SL\_enh, NB\_IOTenh4\_LTE\_eMTC6, LTE\_terr\_bcast\_bands\_part1, LTE\_NBIOT\_eMTC\_NTN To:RAN2, RAN4

* [200] For LTE\_terr\_bcast\_bands\_part1, capabilities already included in 36.306 and 36.331 (as part of [Post117-e][251])
* [200] Other capability updates to be done in WI-specific sessions (i.e. IoT and SL session)
* [200] Noted

### 7.0.3 Feature Lists and UE capabilities

Including essential corrections to Rel-17 UE capabilities or additions based on new inputs from RAN1/4 that are not covered by other WIs or require discussion in the common session due to affecting multiple Rel-17 LTE WIs.

## 7.3 EUTRA R17 Other

(Documents relating to Rel-17 LTE but for which there is no existing RAN WI/SI, e.g. LSs from CT/SA requesting RAN2 action)

Including essential corrections to LTE TEI17 and other LTE Rel-17 WIs not covered by other agenda items. Proposals that do not provide Stage-3 details will not be treated.

Documents that relate to ASN.1 review should indicate the RIL number in the document title.

A single CR is encouraged for small miscellaneous corrections. Small editorial corrections should be sent directly to WI rapporteur. Big open issues can be discussed with contributions with CR in the appendix of the contribution

By Email [200] (1)

[R2-2204467](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204467.zip) LS on updates to 36.300 from LTE\_terr\_bcast\_bands\_part1 (R1-2202825; contact: Qualcomm) RAN1 LS in Rel-17 To:RAN2

Comment: Already Covered last meeting

* [200] Noted (already handled as part of [Post117-e][251])

## 7.4 User Plane Integrity Protection support for EPC connected architectures

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

WI has been declared 100% complete.

Including essential corrections to User Plane Integrity Protection support for EPC connected architectures. Proposals that do not provide Stage-3 details will not be treated.

By Email [200] (1)

[R2-2204490](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204490.zip) Reply LS on User Plane Integrity Protection for eUTRA connected to EPC (R3-222610; contact: Qualcomm) RAN3 LS in Rel-17 To:SA3 Cc:RAN2, CT1, CT4, SA2

* [200] Noted (RAN2 in CC, no actions)

## 7.5 NR and EUTRA Inclusive language

Time budget: N/A

Final inclusive language CRs for RAN2 specifications were approved in RAN#95e.

RAN coordinator for inclusive language is Gino Masini (Ericsson).

This agenda item will not be treated in this meeting unless urgent actions are needed for RAN#96.

# Summary

**Agreed documents ()**

*LTE legacy ()*

*LTE Rel-17 ()*

*Rel-17 DCCA ()*

*Rel-17 MUSIM ()*

*Rel-17 RAN slicing ()*

*Rel-17 71 GHz ()*

**Endorsed documents ()**

**Approved LS out ()**

**Post-meeting email discussions (short, LSs) ()**

**Post-meeting email discussions (short, CR agreement) ()**

**Post-meeting email discussions (long, until next meeting) ()**