3GPP TSG-RAN WG2 Meeting #111 electronic [R2-2008121](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008121.zip)

Online, August 17th - 28th, 2020

**Agenda item: 10.1**

**Source: Vice Chairman (Nokia)**

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

**Document for: Approval**

**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)**

**Organizational**

* [AT111-e][200] Organizational Tero – LTE legacy, LTE Rel-16 and LTE/NR mobility

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 for presentation

Intended outcome (for LS discussion):

* + - General information sharing about the sessions

Deadline for providing comments to LSs:

* + - Deadline: Friday 2020-08-28 1000 UTC

**LTE Legacy** **(kicked off on Monday August 17th)**

* [AT111-e][201][LTE] LTE Miscellaneous Rel-15/16 corrections (Samsung)

Scope:

* + - Discuss the CRs under AI 4.5, 7.1.3 and 7.5 marked for this email discussion

Intended outcome:

* + - Discussion summary in [R2-2008131](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008131.zip) (by email rapporteur)
    - Agreeable CRs by proponents (if revised versions are required, proponents should obtain Tdoc numbers from session chair or RAN2 secretary to provide those)

Deadline for providing comments and for rapporteur inputs:

* + - Initial deadline (for companies' feedback): Wednesday 2020-08-19 10:00 UTC
    - Initial deadline (for rapporteur's summary in [R2-2008131](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008131.zip)): Thursday 2020-08-20 08:00 UTC
    - Deadline for CR finalization: Wednesday 2020-08-26 07:00 UTC

**LTE Legacy (kicked off after online session on Thursday August 20th)**

* [AT111-e][217][LTE] CRs for Clarification on non-contiguous CA capabilities (Nokia)

Scope:

* + - Provide CRs from Rel-12 onwards based on online decisions for [R2-2007517](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007517.zip)

Intended outcome:

* + - Agreeable RRC CRs in [R2-2008152](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008152.zip) (Rel-12), [R2-2008153](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008153.zip) (Rel-13), [R2-2008154](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008154.zip) (Rel-14), [R2-2008155](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008155.zip) (Rel-15), [R2-2008156](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008156.zip) (Rel-16) – CR numbers should be requested from RAN2 secretary

Deadline for providing comments and for rapporteur inputs:

* + - Deadline for CR finalization: Wednesday 2020-08-26 07:00 UTC
* [AT111-e][218][LTE] TDD/FDD differentiation or Rel-15 and earlier (Huawei)

Scope:

* + - Update CRs in [R2-2007554](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007554.zip) and [R2-2007555](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007555.zip) according to online agreements
    - Draft LS to RAN1 informing them if RAN2 findings and asking if they have objections to RAN2 conclusions (as per online conclusions)

Intended outcome:

* + - Agreeable RRC CRs in [R2-2008157](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008157.zip) (Rel-15, CR4389), [R2-2008158](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008158.zip) (Rel-16, CR4390)
    - Draft LS to RAN1

Deadline for providing comments and for rapporteur inputs:

* + - Deadline for CR finalization: Thursday 2020-08-28 07:00 UTC
* [AT111-e][219][LTE] Revised Rel-15/16 LTE corrections (RAN2 VC)

Scope:

* + - Provide agreeable versions of updated contributions [R2-2007579](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007579.zip) (CR1305, 36.300), [R2-2007589](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007589.zip) (CR4392, 36.331), [R2-2007843](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007843.zip) (CR4413, 36.331), [R2-2007844](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007844.zip) (CR4414, 36.331) and [R2-2007655](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007655.zip) (CR1495, 36.321) according to online agreements

Intended outcome:

* + - Revised CRs that are agreeable by each proponent as follows:
      * [R2-2007579](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007579.zip) --> [R2-2008161](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008161.zip), Rel-16 shadow in [R2-2008162](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008162.zip)
      * [R2-2007589](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007589.zip) --> [R2-2008163](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008163.zip), Rel-16 shadow in [R2-2008164](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008164.zip)
      * [R2-2007843](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007843.zip) --> [R2-2008159](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008159.zip)
      * [R2-2007844](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007844.zip) --> [R2-2008160](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008160.zip)
      * [R2-2007655](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007655.zip) --> [R2-2008165](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008165.zip)

Deadline for providing comments and for rapporteur inputs:

* + - Deadline for CR finalization: Wednesday 2020-08-26 09:00 UTC

**LTE Rel-16 (kicked off after online session on Thursday August 20th)**

* [AT111-e][220][LTE] Correction on RRC re-establishment procedure (Huawei)

Scope:

* + - Discuss the issue identified as per [R2-2007737](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007737.zip) and [R2-2006839](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006839.zip) and provide agreeable CR

Intended outcome:

* + - Agreed CR in [R2-2008166](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008166.zip) (CR number needs to be requested from MCC)

Deadline for providing comments and for rapporteur inputs:

* + - Deadline for CR finalization: Thursday 2020-08-27 09:00 UTC
* [AT111-e][221][LTE] Correction on schedulingRequestConfig release (ZTE)

Scope:

* + - Discuss and provide agreeable CR based on [R2-2006850](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006850.zip)

Intended outcome:

* + - Agreed CR in [R2-2008167](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008167.zip) (CR4357R1, 36.331)

Deadline for providing comments and for rapporteur inputs:

* + - Deadline for CR finalization: Thursday 2020-08-27 09:00 UTC

**LTE/NR Mobility (to be kicked off on Monday August 17th)**

* [AT111-e][202][MOB] LTE and NR mobility Stage-2 corrections (Nokia)

Scope:

* + - Collect companies’ feedback for the Stage-2 contributions under 6.7.1, 6.7.3 and 7.4.1 marked for this email discussion
    - Proponents may provide updated versions (if needed) under this email discussion (Tdoc numbers can be requested for this purpose from the session chair or the RAN2 secretary)

Intended outcome:

* + - Discussion summary in [R2-2008132](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008132.zip) (by email rapporteur).
    - Email discussion report treated during the 2nd online session, but session chair may propose intermediate conclusions after summary is available

Deadline for providing comments, for rapporteur inputs, conclusions and CR finalization:

* + - Deadline for companies' feedback: Thursday 2020-08-20 09:00 UTC
    - Deadline for rapporteur's summary (in [R2-2008132](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008132.zip)): Friday 2020-08-21 09:00 UTC
    - Deadline for CR finalization (for agreed CRs): Wednesday 2020-08-26 07:00 UTC
* [AT111-e][203][MOB] CHO and CPC corrections (Intel)

Scope:

* + - Collect companies’ feedback for the contributions under 6.7.2 and 6.7.3 marked for this email discussion
    - Proponents may provide updated versions (if needed) under this email discussion (Tdoc numbers can be requested for this purpose from the session chair or the RAN2 secretary)

Intended outcome:

* + - Discussion summary in [R2-2008133](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008133.zip) (by email rapporteur).
    - Email discussion report treated during the 2nd online session, but session chair may propose intermediate conclusions after summary is available

Deadline for providing comments, for rapporteur inputs, conclusions and CR finalization:

* + - Deadline for companies' feedback: Thursday 2020-08-20 09:00 UTC
    - Deadline for rapporteur's summary (in [R2-2008133](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008133.zip)): Friday 2020-08-21 09:00 UTC
    - Deadline for CR finalization (for agreed CRs): Thursday 2020-08-27 07:00 UTC
* [AT111-e][204][MOB] DAPS corrections (Huawei)

Scope:

* + - Collect companies’ feedback for the contributions under 7.4.2 marked for this email discussion
    - Proponents may provide updated versions (if needed) under this email discussion (Tdoc numbers can be requested for this purpose from the session chair or the RAN2 secretary)

Intended outcome:

* + - Discussion summary in [R2-2008134](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008134.zip) (by email rapporteur).
    - Email discussion report treated during the 2nd online session, but session chair may propose intermediate conclusions after summary is available

Deadline for providing comments, for rapporteur inputs, conclusions and CR finalization:

* + - Deadline for companies' feedback: Thursday 2020-08-20 09:00 UTC
    - Deadline for rapporteur's summary (in [R2-2008134](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008134.zip)): Friday 2020-08-21 09:00 UTC
    - Deadline for CR finalization (for agreed CRs): Thursday 2020-08-27 07:00 UTC
* [AT111-e][205][NR MOB] DAPS RLF andf NR-specific corrections to Rel-16 mobility (Ericsson)

Scope:

* + - Collect companies’ feedback for the contributions under 6.7.5 and 7.4.2 marked for this email discussion
    - Proponents may provide updated versions (if needed) under this email discussion (Tdoc numbers can be requested for this purpose from the session chair or the RAN2 secretary)

Intended outcome:

* + - Discussion summary in [R2-2008135](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008135.zip) (by email rapporteur).
    - Email discussion report treated during the 2nd online session, but session chair may propose intermediate conclusions after summary is available

Deadline for providing comments, for rapporteur inputs, conclusions and CR finalization:

* + - Deadline for companies' feedback: Thursday 2020-08-20 09:00 UTC
    - Deadline for rapporteur's summary (in [R2-200813](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008136.zip)5): Friday 2020-08-21 09:00 UTC
    - Deadline for CR finalization (for agreed CRs): Thursday 2020-08-27 07:00 UTC

**NR Mobility (only started after online session on Tuesday Aug 18th)**

* [AT111-e][206][MOB] UE capability corrections for mobility (China Telecom)

Scope:

* + - Collect companies’ feedback for the UE capability contributions under 6.7.4 and 7.4.3 (in case Tue Aug 18th session runs out of time) marked for this email discussion
    - Proponents may provide updated versions (if needed) under this email discussion (Tdoc numbers can be requested for this purpose from the session chair or the RAN2 secretary)

Intended outcome:

* + - Discussion summary in [R2-2008136](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008136.zip) (by email rapporteur).
    - Email discussion report treated during the 2nd online session, but session chair may propose intermediate conclusions after summary is available

Deadline for providing comments, for rapporteur inputs, conclusions and CR finalization:

* + - Deadline for companies' feedback: Friday 2020-08-21 09:00 UTC
    - Deadline for rapporteur's summary (in [R2-2008136](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008136.zip)): Monday 2020-08-24 12:00 UTC
    - Deadline for CR finalization (for agreed CRs): Thursday 2020-08-27 07:00 UTC

* [AT111-e][214][MOB] DAPS UE capability structure for LTE/NR mobility (Huawei)

Scope:

* + - Discuss the proposals from contributions [R2-2006936](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006936.zip), [R2-2007610](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007610.zip), [R2-2007454](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007454.zip)

Intended outcome:

* + - Discussion summary in [R2-2008144](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008144.zip) (by email rapporteur).
    - NR CRs [R2-200814](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_111-e/Docs/R2-2008137.zip)5 in (38.331) and [R2-2008146](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008146.zip) (38.306)
    - LTE CRs [R2-2008147](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008147.zip) in (36.331) and [R2-200814](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_111-e/Docs/R2-2008137.zip)8 (36.306)
    - LS to RAN1/4 informing them of RAN2 decisions in [R2-2008149](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008149.zip)
    - Email discussion report treated during the 2nd online session, but session chair may propose intermediate conclusions after summary is available

Deadline for providing comments and for rapporteur inputs:

* + - Deadline for companies' feedback: Monday 2020-08-24 10:00 UTC
    - Deadline for rapporteur's summary (in [R2-2008144](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008144.zip)): Tuesday 2020-08-25 12:00 UTC
    - Deadline for CR finalization (for agreed CRs): Thursday 2020-08-27 07:00 UTC

**LTE/NR Rel-16 DCCA (to be kicked off on Monday August 17th)**

* [AT111-e][208][DCCA] Corrections SCell dormancy (Nokia)

Scope:

* + - Collect companies’ feedback for the contributions under 6.8.1, 6.8.2 and 6.8.3.1 marked for this email discussion
    - Proponents may provide updated versions (if needed) under this email discussion (Tdoc numbers can be requested for this purpose from the session chair or the RAN2 secretary)

Intended outcome:

* + - Discussion summary in [R2-2008138](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008138.zip) (by email rapporteur).
    - Session chair proposes agreements after the summary report is available

Deadline for providing comments, for rapporteur inputs, conclusions and CR finalization:

* + - Deadline for companies' feedback: Friday 2020-08-21 10:00 UTC
    - Deadline for rapporteur's summary (in [R2-2008138](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008138.zip)): Monday 2020-08-24 12:00 UTC
    - Deadline for CR finalization (for agreed CRs): Thursday 2020-08-27 07:00 UTC
* [AT111-e][209][DCCA] Corrections to early measurements reporting (Ericsson)

Scope:

* + - Collect companies’ feedback for the contributions under 6.8.3.2 marked for this email discussion
    - Proponents may provide updated versions (if needed) under this email discussion (Tdoc numbers can be requested for this purpose from the session chair or the RAN2 secretary)

Intended outcome:

* + - Discussion summary in [R2-2008139](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008139.zip) (by email rapporteur).
    - Session chair proposes agreements after the summary report is available

Deadline for providing comments, for rapporteur inputs, conclusions and CR finalization:

* + - Deadline for companies' feedback: Friday 2020-08-21 10:00 UTC
    - Deadline for rapporteur's summary (in [R2-2008139](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008139.zip)): Monday 2020-08-24 12:00 UTC
    - Deadline for CR finalization (for agreed CRs): Thursday 2020-08-27 07:00 UTC

* [AT111-e][210][DCCA] Other DCCA Corrections (Ericsson)

Scope:

* + - Collect companies’ feedback for the contributions under 6.8.1 and 6.8.3.3 marked for this email discussion
    - Proponents may provide updated versions (if needed) under this email discussion (Tdoc numbers can be requested for this purpose from the session chair or the RAN2 secretary)

Intended outcome:

* + - Discussion summary in [R2-2008140](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008140.zip) (by email rapporteur).
    - Session chair proposes agreements after the summary report is available

Deadline for providing comments, for rapporteur inputs, conclusions and CR finalization:

* + - Deadline for companies' feedback: Friday 2020-08-21 10:00 UTC
    - Deadline for rapporteur's summary (in [R2-2008140](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008140.zip)): Monday 2020-08-24 12:00 UTC
    - Deadline for CR finalization (for agreed CRs): Thursday 2020-08-27 07:00 UTC
* [AT111-e][215][DCCA] CR finalization (Ericsson)

Scope:

* + - Merge marked CRs to rapporteur versions of 36.331, 38.331, 36.300 and 38.300 (from all DCCA email discussions where editorial changes are agreed). Companies can also provide other editorial comments to [R2-2007582](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007582.zip), [R2-2007583](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007583.zip), [R2-2007584](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007584.zip), and [R2-2007585](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007585.zip)

Intended outcome:

* + - Agreeable CRs

Deadline for providing comments, for rapporteur inputs, conclusions and CR finalization:

* + - Deadline for companies' feedback: Wednesday 2020-08-26 12:00 UTC
    - Deadline for CR finalization (for agreed CRs): Thursday 2020-08-27 07:00 UTC
* [AT111-e][216][DCCA] Correction on HARQ ACK spatial bundling configurations for secondary PUCCH group (Huawei)

Scope:

* + - Provide CR according to option 1 from [R2-2007680](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007680.zip), and company comments offline. Cover page should indicate this is NBC CR and include inter-operability analysis

Intended outcome:

* + - CR to 38.331 in [R2-2008150](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008150.zip) (by email rapporteur).

Deadline for providing comments, for rapporteur inputs, conclusions and CR finalization:

* + - Deadline for CR finalization: Tuesday 2020-08-25 10:00 UTC

**NR Rel-17 DCCA (only started during the 2nd meeting week after online session on Monday Aug 24th)**

* [AT111-e][211][DCCA] Efficient activation/deactivation of CA/DC in Rel-17 (Huawei)

Scope:

* + - Discuss topics under AI 8.2.2 marked for this email discussion according to online discussion agreements

Intended outcome:

* + - Discussion summary in [R2-2008141](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008141.zip) (by email rapporteur).
    - Session chair proposes agreements after the summary report is available

Deadline for providing comments, for rapporteur inputs, conclusions and CR finalization:

* + - Deadline for companies' feedback: Wednesday 2020-08-26 12:00 UTC
    - Deadline for rapporteur's summary (in [R2-2008141](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008141.zip)): Thursday 2020-08-27 12:00 UTC
* [AT111-e][212][DCCA] Conditional PSCell addition and change in Rel-17 (CATT)

Scope:

* + - Discuss topics under AI 8.2.3 marked for this email discussion according to online discussion agreements

Intended outcome:

* + - Discussion summary in [R2-2008142](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008142.zip) (by email rapporteur).
    - Session chair proposes agreements after the summary report is available

Deadline for providing comments, for rapporteur inputs, conclusions and CR finalization:

* + - Deadline for companies' feedback: Wednesday 2020-08-26 12:00 UTC
    - Deadline for rapporteur's summary (in [R2-2008142](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008142.zip)): Thursday 2020-08-27 12:00 UTC

**NR Rel-17 RAN Slicing (only started during the 2nd meeting week after online session on Monday Aug 24th)**

* [AT111-e][213][RAN slicing] Use cases and deployment scenarios (CMCC)

Scope:

* + - Discuss use cases and deployment scenarios based on online decisions.
    - Capture agreements from this meeting in a TP to the TR

Intended outcome:

* + - Discussion summary in [R2-2008143](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008143.zip) (by email rapporteur), including TP for the TR.

Deadline for providing comments, for rapporteur inputs, conclusions and CR finalization:

* + - Deadline for companies' feedback: Wednesday 2020-08-26 12:00 UTC
    - Deadline for rapporteur's summary (in [R2-2008143](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008143.zip)): Thursday 2020-08-27 12:00 UTC

**CR finalization**

* [AT111-e][2xx][NR/LTE] NR/LTE CR (Company)

Scope:

* + - CR capturing changes agreed in this meeting

Intended outcome:

* + - Agreed 3x.xxx CR in [R2-200xxxx](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-200xxxx.zip)

Deadlines for providing comments and for rapporteur inputs:

* + - Deadline for companies' feedback: Wednesday 2020-06-10 12:00 UTC
    - Deadline for rapporteur's version for agreement: Thursday 2020-06-11 10:00 UTC

**Post-meeting email discussions**

* [Post111-e][xx][RAN slicing] TBD: Progressing RAN slicing SI (CMCC)

Scope: Based on online agreements (TBD if needed)

Intended outcome: Email discussion summary + TP

Deadline: Long

* [Post111-e][xx][Multi-SIM] TBD: Work prioritization for Multi-SIM (vivo)

Scope: Discuss the WI use cases and objectives, including priority between them (if any). If LS from SA2 is received, can also discuss draft LS reply.

Intended outcome: Email discussion report + draft SA2 reply LS (IF discussed).

Deadline: Long

* [Post111-e][xx][R16 DCCA] SCell SMTC window for Unaligned CA (CMCC)

Discuss the problem and attempt to come up with a solution.

Intended outcome: Email discussion report + CR (if needed)

Deadline: Long

* [Post111-e][xx][R16 DCCA] Toffset finalization (Ericsson)

Discuss based on RAN1 LS which parts of [R2-2007277](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007277.zip), [R2-2007278](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007278.zip) and [R2-2007578](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007578.zip) are needed in RAN2 specifications and agree to corresponding CRs.

Intended outcome: Agreed CRs

Deadline: Short (1-week)

* [Post110-e][xxx][eDCCA] Efficient activation deactivation of SCG (Huawei)

Scope: a) Cover common grounds, e.g. find “easy” agreements, and items that might need limited discussion. b) Identify key performance trade-off decisions that will need to be taken.

Intended outcome: Report to next meeting

Deadline: Long

* [Post110-e][xxx][eDCCA] Condtional PSCell Change and Addition (CATT)

Scope: Cover common grounds, e.g. confirm which old R16 agreements can be inherited now as “easy” agreements, and items that might need limited discussion.

Intended outcome: Report to next meeting

Deadline: Long

**Template**

* [Post111-e][xx][LTE/NR] Topic (Company)

Scope:

Intended outcome:

Deadline: Short/Long

**Dates and deadlines**

August 6 23.59 PDT (August 7 06.59 UTC) Tdoc number allocation deadline for ALL tdocs (e.g. including summary tdocs).  
General Tdoc Submission Deadline, as usual. Kick off, summaries.

August 13 0700 UTC Tdocs submission deadline for Summaries (baseline version)

August 17 0700 UTC e-Meeting Start (by email) (August 18 0700 UTC is first possible email deadline).

August 21 1000 UTC Suspend decision making in email discussions (= no deadlines etc)

It should be possible for a delegate to take the weekend off, rejoin and not miss decisions.

August 24 1000 UTC Resume decision making in email discussions.

August 28 1000 UTC e-Meeting Stop, no more email comments for AT-meeting email discussions. Decision confirmations   
 announced within 24h. Session notes 1 week email checking.

**Web Conference Schedule**

Note that this schedule is indicative and can change. Changes to the schedule will be announced with notice of at least 24h.

|  |  |  |  |
| --- | --- | --- | --- |
| **Time Zone UTC** | **Web Conference R2 - Main** | **Web Conference R2 - BO1** | **Web Conference R2 - BO2** |
| **Monday 17** |  |  |  |
| 12:00 – 13:30 | Early Items (initial dicussions, kick-off)  - R16 NBC corrections, confirm how we do this.  - R17 LSes (if any)  - LTE SIB24  - R16 R4 WI, TX switching, MPE | [6.9] UE Pow Saving Corrections (Diana) | [6.4] V2X Corrections (Kyeongin) |
| 13:30 – 15:00 | [6.1] R16 NR General (incl UE caps) (Johan)  E.g. also confirm organization of UE caps discussions | [6.3] NR-U Corrections (Diana)  [6.11] 2-Step RACH Corrections (Diana) | [4.1], [7.3] NB-IoT Corrections (Brian) |
| **Tuesday 18** |  |  |  |
| 12:00 – 13:30 | [6.2] IAB Corrections (Johan) | [6.7] NR MobEnh Corrections (Tero)  [7.4] LTE MobEnh Corrections (Tero)  *- 6.7.2 (CHO failure, inter-node signalling), 6.7.3 (compliance check failure), 7.4.2 (PHR, SCell release, Miscellaneous), 6.7.4 (UE capabilities), 7.4.3 (UE capabilities)* | [6.10] SON/MDT Corrections (HuNan) |
| 13:30 – 15:00 | [5.3] NR WI R15 Corrections UP, if needed (Johan)  [5.2] Stage-2 Corr  [5.4] NR WI R15 Corrections CP (Johan) | [6.13] NR eMIMO Corrections (Sergio)  [6.14] NR Other R1 WIs Corrections (Sergio) | [6.6] NR Pos Corrections (Nathan) |
| **Wednesd 19** |  |  |  |
| 12:00 – 13:30 | [6.5] IIOT Corrections (Johan) | [6.8] DCCA Corrections (Tero)  *- 6.8.1 (rapporteur input), 6.8.2 (PHR, SCell activation timing), 6.8.3.2 (email discussion [080]), 6.8.3.3 (Toffset, 2-PUCCH group, SK-counter), 6.8.4 (UE capabilities)* | [4.4] LTE Corrections Pos (Nathan)  [7.6] LTE Pos Corrections (Nathan)  [5.5] NR WI R15 Corrections Pos (Nathan)  [6.6] NR Pos Corrections (Nathan) |
| 13:30 – 15:00 | [5.4] NR WI R15 Corrections CP (Johan) | [6.12] NR Other CP WIs Corrections (Sergio) | [9.1] NB-IoT and eMTC enh (Brian) |
| **Thursday 20** |  |  |  |
| 12:00 – 13:30 | [5.4] NR WI R15 Corrections CP, or other topic Maintenance 1st pass e.g. [6.16][6.1] (Johan) | [6.4] V2X Corrections (Kyeongin)  [4.3] LTE Corrections V2X and SL (Kyeongin) | [4.5] LTE Corrections (Tero)  [7.1] R16 EUTRA General (Tero)  [7.5] LTE Other Corrections (Tero)  *- Summaries of email discussions [255] and [254], R15 RoHC decompression failure, Cross-WI corrections, UE capability LSs, Miscellaneous corrections* |
| 13:30 – 15:00 | [8.1] NR Multicast (Johan) | [4.2], [7.2] eMTC Corrections (Emre) | [8.11] NR Pos SI (Nathan) |
| **Friday 21** |  |  |  |
| 03:30-05:00 | [8.1] NR Multicast (Johan) | [8.10] NR NTN General and CP (Sergio) | [8.13] SON MDT (HuNan) |

|  |  |  |  |
| --- | --- | --- | --- |
| **Time Zone UTC** | **Web Conference R2 - Main** | **Web Conference R2 - BO1** | **Web Conference R2 - BO2** |
| **Monday 24** |  |  |  |
| 13:00 – 14:30 | [8.8] RAN Slicing SI (Tero)  *- Work plan, use cases, deployment scenarios* | [8.10] NR NTN UP (Sergio) | [8.9] UE Power Saving Enh (Johan) |
| 14:30 – 16:00 | [6.1] ] UE Cap Multiple Items (Johan) | [8.6] Small Data Enh (Diana) | [8.7] SL Relay SI (Nathan) |
| **Tuesday 25** |  |  |  |
| 13:00 – 14:30 | [8.2] MR DCCA FEnh (Tero)  *- Work plan, Efficient activation for SCG and SCells, Conditional PSCell addition/change in Rel-17* | [8.12] Red Cap SI (Sergio) | 13:00 - 15:15:  [6.4] V2X Corrections (Kyeongin) |
| 14:30 – 16:00 | [5.4] CB SIB24 and others if any, [6.15] CB R4 items (Johan) | [8.12] Red Cap SI (Sergio) |
| 15:15 – 16:00:  [8.7] SL Relay SI (Nathan) |
| **ednesd 26** |  |  |  |
| 13:00 – 14:30 | [6.3] R16 NR-U, [6.9] Powsaving CB (Diana) | [6.7] NR MobEnh Corrections (Tero)  [7.4] LTE MobEnh Corrections (Tero)  [6.8] DCCA Corrections (Tero)  *- At-meeting email discussion status and conclusions* | [8.7] SL Relay SI (Nathan) |
| 14:30 – 16:00 | [8.5] IIOT URLLC Enh (Diana) | CB R16 (Sergio) | [7.2] eMTC Corrections (Emre)  [7.3] NB-IoT Corrections (Brian) |
| **Thursday 27** |  |  |  |
| 04:00 – 05:30 | CB Continued.  CB R17 some WIs way forward (Johan) | CB (Kyeongin) | CB (Brian/Emre) |
| **Friday 28** |  |  |  |
| 04:00 – 05:30 | CB (Nathan)  CB (HuNan) if needed | CB (Diana) if needed  CB R17 (Sergio) | CB (Tero)  *- RAN slicing and R17 DCCA email discussion conclusions*  *-MobEnh and R16 DCCA leftovers (if needed)* |

# WEB CONFERENCE TUESDAY AUGUST 18TH

# 6 Rel-16 NR Work Items

Essential corrections. While high maintenance intensity is expected, Rel-16 corrections are treated separately per WI.

## 6.7 NR mobility enhancements

(NR\_Mob\_enh-Core; leading WG: RAN2; REL-16; started: Jun 18; Completed June 20; WID: RP-192277; SR RP-201273). Documents in this agenda item will be handled in a break out session).

Documents under 6.7 will be treated together with documents in 7.4.

Email max expectation: 8 email threads (with 7.4)

### 6.7.1 General and Stage 2 Corrections

Including incoming LSs (if any).

By Email [202]

37.340 corrections (CPC, DAPS):

[R2-2007016](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007016.zip) Minor Correction for CPC configuration related procedure CATT, ZTE Corporation CR Rel-16 37.340 16.2.0 0218 - F NR\_Mob\_enh-Core

[R2-2007266](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007266.zip) SCG handling at DAPS HO Ericsson, ZTE Corporation (Rapporteur), Sanechips CR Rel-16 37.340 16.2.0 0219 - F NR\_Mob\_enh-Core

[R2-2007542](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007542.zip) Correction for editorial structure of CPC section Samsung Electronics Romania CR Rel-16 37.340 16.2.0 0221 - D NR\_Mob\_enh-Core

36.300 and 38.300 corrections (DAPS, CPC):

[R2-2007359](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007359.zip) Various corrections to NR Mobility enhancements description Nokia, Nokia Shanghai Bell CR Rel-16 38.300 16.2.0 0274 - F NR\_Mob\_enh-Core

[R2-2007698](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007698.zip) Clarification on SCells and SCG release at DAPS HO ZTE Corporation, Sanechips, Ericsson CR Rel-16 38.300 16.2.0 0287 - F NR\_Mob\_enh-Core

[R2-2007699](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007699.zip) Clarification on SCells and SCG release at DAPS HO ZTE Corporation, Sanechips, Ericsson CR Rel-16 36.300 16.2.0 1307 - F LTE\_feMob-Core

* The above inputs are handled in discussion [202]
* [AT111-e][202][MOB] LTE and NR mobility Stage-2 corrections (Nokia)

Scope:

* + - Collect companies’ feedback for the Stage-2 contributions under 6.7.1, 6.7.3 and 7.4.1 marked for this email discussion
    - Proponents may provide updated versions (if needed) under this email discussion (Tdoc numbers can be requested for this purpose from the session chair or the RAN2 secretary)

Intended outcome:

* + - Discussion summary in [R2-2008132](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008132.zip) (by email rapporteur).
    - Email discussion report treated during the 2nd online session, but session chair may propose intermediate conclusions after summary is available

Deadline for providing comments, for rapporteur inputs, conclusions and CR finalization:

* + - Deadline for companies' feedback: Thursday 2020-08-20 09:00 UTC
    - Deadline for rapporteur's summary (in [R2-2008132](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008132.zip)): Friday 2020-08-21 09:00 UTC
    - Deadline for CR finalization (for agreed CRs): Wednesday 2020-08-26 07:00 UTC

*Withdrawn:*

[R2-2007267](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007267.zip) SCG handling at DAPS HO Ericsson CR Rel-16 38.300 16.2.0 0272 - F NR\_Mob\_enh-Core Late

### 6.7.2 Conditional handover related corrections

This AI jointly addresses corrections to NR and LTE CHO.

By Web Conf (Tuesday August 18th)

CHO failure handling:

[R2-2007700](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007700.zip) Discussion on the cell selection triggered by CHO failure ZTE Corporation, Sanechips discussion Rel-16 NR\_Mob\_enh-Core

*Observation 1: According to the current RRC spec, it’s possible that the UE selects the same cell failed in the first CHO execution, to attempt a second CHO execution.*

*Observation 2: If the UE selects the same cell failed in the first CHO execution to attempt a second CHO execution, there is a risk of security problem due to COUNT re-use for the data transmission in the same target cell.*

*Proposal 1: Prohibit the UE to attempt a second CHO execution in the same cell failed in the first CHO execution.*

*Proposal 2: Select one of following two alternatives:*

*Alt. 1: The UE precludes the cell failed in the previous CHO execution during cell selection;*

*Alt. 2: The UE autonomously deletes the failed candidate cell configuration upon detection of the CHO failure.*

**Discussion**

- OPPO thinks we don’t specify everything for cell selection. Could leave up to UE implementation. LGE agrees. Ericsson thinks P1 is already handled. Could occur after legacy HO but this would not be a problem. QC thinks there isn’t a strong SA3 security issue since we don’t send data in Msg3.

=> Noted (up to UE implementation to handle)

[R2-2007701](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007701.zip) Clarification on the cell selection triggered by CHO failure (Alt. 1) ZTE Corporation, Sanechips CR Rel-16 38.331 16.1.0 1884 - F NR\_Mob\_enh-Core

[R2-2007702](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007702.zip) Clarification on the cell selection triggered by CHO failure (Alt. 2) ZTE Corporation, Sanechips CR Rel-16 38.331 16.1.0 1885 - F NR\_Mob\_enh-Core

[R2-2007703](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007703.zip) Clarification on the cell selection triggered by CHO failure (Alt. 1) ZTE Corporation, Sanechips CR Rel-16 36.331 16.1.0 4402 - F LTE\_feMob-Core

[R2-2007704](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007704.zip) Clarification on the cell selection triggered by CHO failure (Alt. 2) ZTE Corporation, Sanechips CR Rel-16 36.331 16.1.0 4403 - F LTE\_feMob-Core

Inter-node signallling:

[R2-2007229](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007229.zip) Internode signalling upon reconfiguration of source Pcell Samsung Telecommunications discussion Rel-16 NR\_Mob\_enh-Core

*Proposal 1 When modifying configuration of PCell while CHO is configured, node controlling PCell (source MN) initiates HO preparation to node controlling candidate target PCell (candidate target MN), as only target node can properly determine whether configuration of candidate target PCell is affected*

*Proposal 2 If target node determines that configuration of candidate target PCell is not affected, it returns a HANDOVER REQUEST ACKNOWLEDGE including a handoverCommandMessage octet string of 0 size (ensures there will be no signalling towards the UE in such a case)*

**Discussion**

- Samsung clarifies this is about when source is not aware if its reconfiguration affects the target configuration.

- MediaTek wonders if this is needed since this is left up to network. Ericsson thinks this is an optimization if source and target cell are in different nodes. May not be needed in Rel-16. CATT agrees. Nokia also agrees and this is not only RAN2 topic. Huawei agrees.

- Samsung wonders if it’s clear that network is allowed to return octet size zero? Ericsson thinks this is not specifed yet but target would likely send the same message again.

- Samsung wonders if UE has to be prepared to receive another HO preparation with the same content? Intel thinks UE just follows the network command and there are no problems. MTK agrees. Ericsson thinks we don’t have delta signalling since it’s just a container, so it’s not a problem.

* Noted (no support to do this in Rel-16)

[R2-2007230](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007230.zip) Clarifications regarding CHO Samsung Telecommunications CR Rel-16 38.331 16.1.0 1806 - F NR\_Mob\_enh-Core

**Discussion**

- Intel thinks the first part is not valid since T304 is used for CHO failure determination and UE already selected one. Since we have one T304, only one the timer is running will UE try CHO failure recovery. Samsung wonders if this is really so? Nokia thinks CHO failure recovery mechanism means we only try one cell. MediaTek agrees.

- Intel thinks the seslicingcond part was a compromise from earlier meeting. Nokia and QC agree.

- LGE thinks the second change would be helpful for consistency. Samsung also thinks Stage-3 is inconsistent.

* Noted (UE can only attempt one CHO execution as part of failure recovery)

Signalling optimizations – only treated if time allows:

[R2-2008011](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008011.zip) Discussion on physical cell id for CHO configurations Huawei, HiSilicon discussion Rel-16 NR\_Mob\_enh-Core, LTE\_feMob-Core

[R2-2007718](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007718.zip) UE assistance information transmission in CHO case SHARP Corporation discussion NR\_Mob\_enh-Core

By Email [203]

Miscellaneous small corrections to 36.331:

[R2-2006869](C:\\Users\\terhentt\\Documents\\Tdocs\\RAN2\\RAN2_111-e\\R2-2006869.zip) Correction to conditional configurations Google Inc. CR Rel-16 36.331 16.1.1 4359 - F LTE\_NR\_DC\_CA\_enh-Core

[R2-2007765](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007765.zip) Correction on TS 36.331 for CHO Huawei, HiSilicon CR Rel-16 36.331 16.1.1 4409 - F LTE\_feMob-Core

By Email [203]

Miscellaneous small corrections to 38.331:

[R2-2007764](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007764.zip) Correction on TS 38.331 for CHO Huawei, HiSilicon CR Rel-16 38.331 16.1.0 1898 - F NR\_Mob\_enh-Core

[R2-2007663](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007663.zip) Correction to update of CHO configuration Samsung CR Rel-16 36.331 16.1.1 4396 - F LTE\_feMob-Core

[R2-2007664](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007664.zip) Corrections to Mobility Enahncements Samsung CR Rel-16 38.331 16.1.0 1874 - F NR\_Mob\_enh-Core

[R2-2007705](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007705.zip) Timer handling upon initiation of RRC re-establishment ZTE Corporation, Sanechips CR Rel-16 38.331 16.1.0 1886 - F NR\_Mob\_enh-Core

[R2-2007706](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007706.zip) Timer handling upon initiation of RRC re-establishment ZTE Corporation, Sanechips CR Rel-16 36.331 16.1.0 4404 - F LTE\_feMob-Core

[R2-2007859](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007859.zip) Correction on NR CHO OPPO CR Rel-16 38.331 16.1.0 1936 - F NR\_Mob\_enh-Core

[R2-2007594](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007594.zip) Correction of description of CHO events for Mobility Enhancements Ericsson CR Rel-16 38.331 16.1.0 1868 - F NR\_Mob\_enh-Core

[R2-2007018](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007018.zip) Minor Correction for Mobility Further Enhancement CATT CR Rel-16 38.331 16.1.0 1771 - F NR\_Mob\_enh-Core

[R2-2007361](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007361.zip) Corrections to Conditional Reconfiguration triggering Nokia, Nokia Shanghai Bell CR Rel-16 38.331 16.1.0 1836 - F NR\_Mob\_enh-Core

[R2-2007593](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007593.zip) Correction of Need Code for Mobility Enhancements Ericsson CR Rel-16 38.331 16.1.0 1867 - F NR\_Mob\_enh-Core

* The above inputs are handled in discussion [203]
* [AT111-e][203][MOB] CHO and CPC corrections (Intel)

Scope:

* + - Collect companies’ feedback for the contributions under 6.7.2 and 6.7.3 marked for this email discussion
    - Proponents may provide updated versions (if needed) under this email discussion (Tdoc numbers can be requested for this purpose from the session chair or the RAN2 secretary)

Intended outcome:

* + - Discussion summary in [R2-2008133](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008133.zip) (by email rapporteur).
    - Email discussion report treated during the 2nd online session, but session chair may propose intermediate conclusions after summary is available

Deadline for providing comments, for rapporteur inputs, conclusions and CR finalization:

* + - Deadline for companies' feedback: Thursday 2020-08-20 09:00 UTC
    - Deadline for rapporteur's summary (in [R2-2008133](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008133.zip)): Friday 2020-08-21 09:00 UTC
    - Deadline for CR finalization (for agreed CRs): Thursday 2020-08-27 07:00 UTC

*Withdrawn:*

[R2-2007502](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007502.zip) Corrections to number of candidate cell in CHO Samsung Electronics Romania CR Rel-16 38.331 16.1.0 1849 - F NR\_Mob\_enh-Core Withdrawn

### 6.7.3 Conditional PSCell change for intra-SN corrections

Including corrections for CPC.

By Web Conf (Tuesday August 18th)

[R2-2007707](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007707.zip) Discussion on the compliance check failure for CPC configuration after PCell change ZTE Corporation, Sanechips discussion Rel-16 NR\_Mob\_enh-Core

* Revised in [R2-2008398](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008398.zip)

[R2-2008398](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008398.zip) Discussion on the compliance check failure for CPC configuration after PCell change ZTE Corporation, Sanechips discussion Rel-16 NR\_Mob\_enh-Core

*Observation 1: According to the current RRC spec, all stored CPC configuration will be released upon PCell change. For the PCell change without SN involved, since the SN is not aware of the PCell change, the SN has no idea whether the stored CPC configuration has been released or not on the UE side.*

*Observation 2: After PCell change without SN involved, if the SN wants to modify the previous CPC configuration, a reconfiguration failure may happen since the UE may consider the received CPC configuration as a new one but the condExecutionCond and the condRRCReconfig may not be carried simultaneously, which shall cause the undesired recovery procedure (e.g. SCG failure information procedure or the RRC re-establishment procedure).*

*Proposal 1: The UE does not consider the message as erroneous if condRRCReconfig and condExecutionCond are not simultaneously included in the conditionalReconfiguration for CPC. And the UE ignores the received CPC configuration.*

**Discussion**

- Intel thinks we don’t support delta signalling for the reconfiguration so there is no problem. If execution condition is not contained there could be a problem, but that should be handled by network. CATT thinks this can be resolved at network side.

- ZTE thinks we might need to have INM informing SN about PCell handover, which could impact RAN3. UE implementation would be simpler. QC thinks this may happen but would prefer network to solve it. Could suggest RAN3 to define INM signalling to solve this. Apple agrees this is a network issue.

- Ericsson thinks this should be solved by RAN3 and RAN2 is not the right place. Samsung wonders if this really requires new signalling? MN could indicate release using existing signalling. Nokia thinks the problem could occur but this is more network signalling and could be discussed there. Huawei agrees.

* Noted (can be raised up in RAN3 by company contributions)

[R2-2007708](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007708.zip) Compliance check failure for CPC configuration ZTE Corporation, Sanechips CR Rel-16 38.331 16.1.0 1887 - F NR\_Mob\_enh-Core

* Revised in [R2-2008399](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008399.zip)

[R2-2008399](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008399.zip) Compliance check failure for CPC configuration ZTE Corporation, Sanechips CR Rel-16 38.331 16.1.0 1887 - F NR\_Mob\_enh-Core

[R2-2007709](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007709.zip) Compliance check failure for CPC configuration ZTE Corporation, Sanechips CR Rel-16 36.331 16.1.0 4405 - F LTE\_feMob-Core

* Revised in [R2-2008400](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008400.zip)

[R2-2008400](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008400.zip) Compliance check failure for CPC configuration ZTE Corporation, Sanechips CR Rel-16 36.331 16.1.0 4405 - F LTE\_feMob-Core

By Email [202]

*Stage-2 corrections:*

[R2-2007360](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007360.zip) Corrections to CPC with and without SRB3 involved Nokia, Nokia Shanghai Bell CR Rel-16 37.340 16.2.0 0220 - F NR\_Mob\_enh-Core

[R2-2007595](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007595.zip) Correction for Mobility Enhancements Ericsson CR Rel-16 37.340 16.2.0 0223 - F NR\_Mob\_enh-Core Late

* The above inputs are handled in discussion [203]

By Email [203]

*Stage-3 corrections:*

[R2-2007592](C:\\Users\\terhentt\\Documents\\Tdocs\\RAN2\\RAN2_111-e\\R2-2007592.zip) Correction of field description for Mobility Enhancements Ericsson CR Rel-16 38.331 16.1.0 1866 - F NR\_Mob\_enh-Core

[R2-2007766](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007766.zip) Correction on TS 38.331 for CPC Huawei, HiSilicon CR Rel-16 38.331 16.1.0 1899 - F NR\_Mob\_enh-Core

[R2-2007767](C:\\Users\\terhentt\\Documents\\Tdocs\\RAN2\\RAN2_111-e\\R2-2007767.zip) Correction on TS 36.331 for CPC Huawei, HiSilicon CR Rel-16 36.331 16.1.1 4410 - F NR\_Mob\_enh-Core

* The above inputs are handled in discussion [203]

### 6.7.4 UE capabilities

Including UE capability aspects of NR mobility WI.

By Web Conf (Tuesday August 18th) or By Email [206] (if time doesn’t allow)

Proposal 2, 3 and 5 handled here as per main session decisions:

[R2-2006936](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006936.zip) Report of email discussion [Post109bis-e][082] UE Capabilties Intel Corporation, NTT DoCoMo discussion Rel-16 NR\_UE\_pow\_sav, NR\_IAB-Core, NR\_eMIMO-Core, NR\_IIOT-Core, NR\_2step\_RACH-Core, 5G\_V2X\_NRSL-Core, NR\_Mob\_enh-Core, NR\_pos-Core, NR\_unlic-Core, LTE\_NR\_DC\_CA\_enh-Core, NR\_SON\_MDT-Core, NR\_CLI\_RIM, NG\_RAN\_PRN-Core, TEI16, NR\_L1enh\_URLLC-Core

* Results of the discussion will be informed to RAN1/4 via LS (see main session discussion on [R2-2006940](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006940.zip))

*Proposal#2: Discuss how to handle the CHO capabilities (i.e. condHandoverFailure-r16 and condHandoverTwoTriggerEvents-r16) requiring both xDD Diff and FRx-Diff. If any change is made on CHO, the corresponding CPC capabilities need to change as well.*

*Proposal#3: For UE capabilities that are changed from per UE requiring xDD-Diff and FRx-Diff to per band, a new condition needs to be added (i.e. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands respectively). This will apply to (parameters so far implemented for Rel-16 that have both xDD-DIFF and FRx-DIFF):*

*MeasAndMobParameters:*

*• condHandover-r16*

*• pcellT312-r16*

*• handoverIntraF-IAB-r16*

*MeasAndMobParametersMRDC:*

*• condPScellChange-r16*

*• pcellT312-r16*

*Proposal#5: Include the following 2 RAN2 agreements on intraFreqDAPS and interFreqDAPS in the LS to RAN1 and 4:*

*4: For inter freq DAPS, the capability inter-FreqDAPS is specified per BC (for intra band, inter band cases). It is put under existing CA bandcombination, and same as CA, the CCs in the bandcombination with UL can all be source or target PCell.*

*7: Per Band per BC capability (intraBandDiffSCS, intraFreq-DAPS) is put in BandParameters.*

**Discussion**

Capability restructuring:

[R2-2007610](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007610.zip) UE Capabilities for DAPS Ericsson discussion Rel-16 NR\_Mob\_enh-Core

*Observation 1 During the DAPS handover from source PCell to target PCell the UE does not operate any SCells. Hence, it is not intuitive to place DAPS capabilities into the “band combination” structure.*

*Observation 2 The current specifications nor the draft capability-update CR explain how the UE should set the DAPS capabilities and how the network should interpret them.*

*Observation 3 Adding the DAPS capabilities to the Band Combination adds substantial overhead and will most likely lead to reporting of many fallback BCs only for the purpose of advertising DAPS. Furthermore, the signalling structure for intra-frequency DAPS will add a lot of redundancy.*

*Proposal 1 The UE may report support for intra-frequency DAPS “per Band”.*

*Proposal 2 For each “source band” the UE may report towards which “target bands” it supports inter-frequency DAPS.*

*Proposal 3 For each of the target bands the UE may provide the additional inter-frequency DAPS parameters.*

*Proposal 4 Agree to re-structure the DAPS capabilities according to the given TP.*

[R2-2007454](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007454.zip) Discussion on UE capabilities for NR DAPS Huawei, HiSilicon, Vivo, Mediatek Inc. discussion Rel-16 NR\_Mob\_enh-Core

*Observation 1: for FR1+FR2 band combinations where the UE cannot support FR1+FR2 CA, there is no way to indicate DAPS UE capability in this band combination based on current signalling structure.*

*Observation 2: through defining a new featureSetCombinationDAPS, UE can support FR1+FR2 band combinations for DAPS HO without supporting FR1+FR2 CA, and with less signalling overhead introduced.*

*Observation 3: by reusing featureSetCombination for DAPS, it mixes CA feature sets and DAPS feature sets up and lead to incorrect configuration eventually.*

*Observation 4: through defining a new featureSetCombinationDAPS, it allows UE to support different feature sets for DAPS from CA, and avoid applying CA/DAPS configurations to DAPS/CA mistakenly.*

*Proposal 1: define a new featureSetCombinationDAPS to indicate DAPS UE capability accurately.*

*Proposal 2: if this field is absent, current featureSetCombination can still be used for DAPS.*

**Discussion (both of above)**

- Ericsson thinks current DAPS capabilities are not very understandable and cause overhead.

- Huawei thinks UE may not have CA and DAPS capabilities fully the same

- Intel thinks that current signalling structure is a mix between Huawei and Ericsson proposals. CA baseline was intended to reduce signalling overhead. There are lot of limitations for DAPS and there is less flexibility than with CA.

- MediaTek thinks CA-based configuration helps to reduce overhead and limited flexibility may not be necessary. Would be fine with Huawei proposal. QC is open to discuss but doesn’t think Ericsson proposal doesn’t allow different MIMO layer parameters. Could have that per BC and Huawei proposal could be fine. CATT supports the Huawei proposal. CMCC and China Telecom also support the Huawei proposal. China Telecom wonders if per-band impacts DAPS featureSets? ZTE also thinks it’s fine.

- Ericsson thinks the capabilities were done in a rush and we can still change them. Samsung agrees and thinks Huawei proposal is granular. Apple is not sure how this works and how it resolves CA and DAPS limitations.

- Ericsson could accept Huawei proposal and similar approach could be used with UL Tx switching. QC wonders if both intra- and inter-frequency are covered.

* RAN2 agrees to consider direction as per [R2-2007454](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007454.zip).
* Discuss in email discussion [214] (Huawei) how the proposal works – needs to consider how the proposal works for both intra- and inter-frequency for both NR and LTE.
* Discuss also to LS RAN1/4 informing them of the UE capability changes.
* Expected outcome: NR and LTE CRs, LS to RAN1/4
* [AT111-e][214][MOB] DAPS UE capability structure for LTE/NR mobility (Huawei)

Scope:

* + - Discuss the proposals from contributions [R2-2006936](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006936.zip), [R2-2007610](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007610.zip), [R2-2007454](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007454.zip)

Intended outcome:

* + - Discussion summary in [R2-2008144](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008144.zip) (by email rapporteur).
    - NR CRs [R2-200814](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_111-e/Docs/R2-2008137.zip)5 in (38.331) and [R2-2008146](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008146.zip) (38.306)
    - LTE CRs [R2-2008147](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008147.zip) in (36.331) and [R2-200814](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_111-e/Docs/R2-2008137.zip)8 (36.306)
    - LS to RAN1/4 informing them of RAN2 decisions in [R2-2008149](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008149.zip)
    - Email discussion report treated during the 2nd online session, but session chair may propose intermediate conclusions after summary is available

Deadline for providing comments and for rapporteur inputs:

* + - Deadline for companies' feedback: Monday 2020-08-24 10:00 UTC
    - Deadline for rapporteur's summary (in [R2-2008144](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008144.zip)): Tuesday 2020-08-25 12:00 UTC
    - Deadline for CR finalization (for agreed CRs): Thursday 2020-08-27 07:00 UTC
* After the solution direction is clear (as per outcome of [214]), proponents may to bring up the topic in the UL Tx discussion to see if the same approach could work there (requires additional discussion, no decision in this session on UL Tx switching)

By Email [206]

Miscellaneous corrections, XDD/FRX differentiation, dependent capabilities:

[R2-2007845](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007845.zip) Miscellaneous corrections for Rel-16 UE capabilities Samsung discussion Rel-16 NR\_Mob\_enh-Core

[R2-2007846](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007846.zip) Miscellaneous corrections for Rel-16 UE capabilities Samsung CR Rel-16 38.331 16.1.0 1927 - F NR\_Mob\_enh-Core

[R2-2007847](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007847.zip) Miscellaneous corrections for Rel-16 UE capabilities Samsung CR Rel-16 38.306 16.1.0 0394 - F NR\_Mob\_enh-Core

[R2-2007455](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007455.zip) Discussion on per UE NR mobility capabilities Huawei, HiSilicon discussion Rel-16 NR\_Mob\_enh-Core

[R2-2007457](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007457.zip) Correction on TS 38.306 for DAPS Huawei, HiSilicon CR Rel-16 38.306 16.1.0 0380 - F NR\_Mob\_enh-Core

Reverting previous decision on dual-quantity CHO event – only treated if time allows:

[R2-2007591](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007591.zip) Multi quantity event for CHO Ericsson discussion NR\_Mob\_enh-Core

* The above inputs are handled in discussion [206] (see AI 7.4.3)

### 6.7.5 Other

Including DAPS aspects that are NR-specific without equivalent LTE impacts.

By Email [205]

[R2-2007017](C:\\Users\\terhentt\\Documents\\Tdocs\\RAN2\\RAN2_111-e\\R2-2007017.zip) Correction on Source Cell Group and Source SpCell CATT CR Rel-16 38.331 16.1.0 1770 - F NR\_Mob\_enh-Core

[R2-2007482](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007482.zip) RRC Re-establishment at RLF in target PCell during DAPS HO Ericsson CR Rel-16 38.331 16.1.0 1846 - F NR\_Mob\_enh-Core

[R2-2007571](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007571.zip) RLF in source cell during DAPS handover Ericsson CR Rel-16 38.331 16.1.0 1861 - F NR\_Mob\_enh-Core

[R2-2007495](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007495.zip) T312 handling during MobilityFromNR Lenovo (Beijing) Ltd CR Rel-16 38.331 16.1.0 1847 - F NR\_Mob\_enh-Core

[R2-2008018](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008018.zip) CR on drb-ContinueROHC for DAPS Samsung CR Rel-16 38.331 16.1.0 1974 - F NR\_Mob\_enh-Core

* The above inputs are handled in discussion [205]
* [AT111-e][205][NR MOB] DAPS RLF andf NR-specific corrections to Rel-16 mobility (Ericsson)

Scope:

* + - Collect companies’ feedback for the contributions under 6.7.5 and 7.4.2 marked for this email discussion
    - Proponents may provide updated versions (if needed) under this email discussion (Tdoc numbers can be requested for this purpose from the session chair or the RAN2 secretary)

Intended outcome:

* + - Discussion summary in [R2-200813](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008136.zip)5 (by email rapporteur).
    - Email discussion report treated during the 2nd online session, but session chair may propose intermediate conclusions after summary is available

Deadline for providing comments, for rapporteur inputs, conclusions and CR finalization:

* + - Deadline for companies' feedback: Thursday 2020-08-20 09:00 UTC
    - Deadline for rapporteur's summary (in [R2-200813](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008136.zip)5): Friday 2020-08-21 09:00 UTC
    - Deadline for CR finalization (for agreed CRs): Thursday 2020-08-27 07:00 UTC

# 7 Rel-16 EUTRA Work Items

Essential corrections

## 7.4 Even further mobility enhancement in E-UTRAN

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

Documents under 7.4 will be treated together with documents in 6.7

### 7.4.1 General and Stage 2 Corrections

Including incoming LSs (if any)

By Email [202]

DAPS corrections:

[R2-2007358](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007358.zip) Clarification on no DAPS HO in MR-DC Nokia, Nokia Shanghai Bell CR Rel-16 36.300 16.2.0 1301 - F LTE\_feMob-Core

(moved from 7.4.2)

[R2-2008075](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008075.zip) Correction on TS38.300 for source fallback in DAPS Huawei, HiSilicon CR Rel-16 38.300 16.2.0 0291 - F NR\_Mob\_enh-Core

(moved from 7.4.2)

[R2-2008074](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008074.zip) Correction on TS36.300 for uplink data switching in DAPS Huawei, HiSilicon CR Rel-16 36.300 16.2.0 1312 - F LTE\_feMob-Core

(moved from 7.4.2)

[R2-2008076](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008076.zip) Correction on TS38.300 for uplink data switching in DAPS Huawei, HiSilicon CR Rel-16 38.300 16.2.0 0292 - F NR\_Mob\_enh-Core

(moved from 7.4.2)

[R2-2007496](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007496.zip) DAPS handover corrections Ericsson CR Rel-16 36.300 16.2.0 1302 - F LTE\_feMob-Core

(moved from 7.4.2)

[R2-2007497](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007497.zip) DAPS handover corrections Ericsson CR Rel-16 38.300 16.2.0 0278 - F NR\_Mob\_enh-Core

(moved from 7.4.2)

CHO corrections (LTE-specific):

[R2-2007762](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007762.zip) Correction on CHO for LTE-5GC Huawei, HiSilicon CR Rel-16 36.300 16.2.0 1308 - F LTE\_feMob-Core

(moved from 7.4.4)

[R2-2007763](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007763.zip) Correction on TS 36.300 for CHO Huawei, HiSilicon CR Rel-16 36.300 16.2.0 1309 - F LTE\_feMob-Core

(moved from 7.4.4)

### 7.4.2 DAPS handover Corrections

This AI jointly addresses corrections to NR and LTE DAPS.

Including corrections to control and user plane for DAPS HO.

By Web Conf (Tuesday August 18th)

PHR configuration for DAPS HO: Are both single-entry and multi-entry PHR allowed during DAPS?

[R2-2006791](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006791.zip) PHR reporting format for DAPS Handover Qualcomm Inc, Huawei, HiSilicon discussion Rel-16 NR\_Mob\_enh-Core, LTE\_feMob-Core

*Observation 1. During DAPS HO, network provides what is maximum power to be allocated for source and target cells. Source and target cells will perform independent UL power control for source and target PCell physical channels (i.e PUSCH, PUCCH, SRS) and the combined UE transmit power to both source and target cells will not exceed maximum UE Tx power limit.*

*Observation 2. Type 1 PHR reporting reflects the power headroom assuming PUSCH-only transmission on the PCell, Type-2 PHR reporting assumes combined PUSCH and PUCCH transmission on PCell and Typ3 PHR reporting is by taking SRS transmission power control into account.*

*Observation 3. Type 1, Type2 and Type3 LTE PH calculations are different depending upon whether UE is transmitting PUSCH, PUCCH, SRS in reporting sub frames.*

*Observation 4. For accurate LTE UL power control of PUSCH, PUCCH, SRS and for allocating UL scheduling grant (MCS, RB allocation), eNB needs to know accurate values of PH values for Type 1, Type2 and Type3 PH and corresponding Pc,max values.*

*Proposal 1. During LTE DAPS HO, UE uses DC based PHR reporting format for both source and target PCells including type1, type2 and type3 PH and corresponding Pcmax,c values.*

*Proposal 2. LTE DC based PHR reporting format used for DAPS HO for both source and target cell includes other cell PHR and it is upto network implementation whether to consider or ignore other cells reported PHR value.*

*Proposal 3. Agree to LTE MAC CR in* [*R2-2007692*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007692.zip) *and RRC CR in* [*R2-2007693*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007693.zip)

[R2-2007523](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007523.zip) PHR for DAPS Ericsson discussion Rel-16 LTE\_feMob-Core

*Proposal 1 The single-octet PHR MAC CE is used during DAPS.*

*Proposal 2 Adopt the text proposal in the annex.*

**Discussion of both above**

- QC confirms this is for LTE and not for NR. Type2 gives better picture of PHR to network.

- Ericsson indicates DAPS is a “short-term” state and doesn’t think optimizations are needed. QC thinks that Type3 could also be needed and PcMax could be needed as it’s different in CA and single cell.

- Huawei clarifies it’s not intended to revert cross-reporting agreement. Type3 could be useful especially for TDD.

- vivo thinks this is not a problem for NR and only applies for LTE. Type1 could be sufficient even if PcMax would allow more accurate UL PC. RAN1 has agreed to prioritize target cell transmissions. LGE thinks Type1 is sufficient. MediaTek agrees and thinks UL switching doesn’t really allow for UP scheduling, just control so Type2 is not as needed. CATT agrees and thinks QC proposal adds some complexity to specification. Nokia also agrees and thinks reusing DC-based PHR is not so easy without modifications. Apple agrees for the same reasons.

- Chair wonders what the complexity of the Ericsson proposal is since there is no CR.

- QC wonders how Type1 works for target cell if we can’t do UL PC well? How is the PcMax value reported? Ericsson thinks network would just be more restricted in how much power it can use after DAPS HO. Samsung has some sympathy with QC but thinks current specification may be ambiguous so would be good to do something. Prefers Ericsson approach.

- Ericsson thinks we need to specify to avoid IOT issues. Samsung thinks single-entry PHR is the onyl thing supported since we release CA.

- Qualcomm disagrees with the proposal.

* Clarify that only Type1 PHR can be used during DAPS.
* No modifications to Type2/3 PH reporting due to DAPS.

Email discussion [206] to clarify how to clarify the above in specs.

[R2-2006798](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006798.zip) Clarification on single entry PHR for DAPS vivo discussion Rel-16 NR\_Mob\_enh-Core

[R2-2007692](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007692.zip) MAC CR for PHR reporting format for LTE DAPS handover Qualcomm Inc, Huawei, HiSilicon CR Rel-16 36.321 16.1.0 1496 - F LTE\_feMob-Core

[R2-2007693](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007693.zip) RRC CR for PHR reporting for LTE DAPS handover Qualcomm Inc, Huawei, HiSilicon CR Rel-16 36.331 16.1.1 4399 - F LTE\_feMob-Core

Not treated (no online time)

Control plane for corrections DAPS HO: CA- and SCell-related corrections

[R2-2007308](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007308.zip) Discussion on source release indication Huawei, HiSilicon discussion Rel-16 LTE\_feMob-Core

*Proposal 1: RAN2 confirm that network should include the source release indication in the first RRCReconfiguration message after UE completes random-access procedure to target cell successfully, i.e. after DAPS handover is successful.*

[R2-2007309](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007309.zip) Discussion on releasing SCells Huawei, HiSilicon discussion Rel-16 LTE\_feMob-Core

*Proposal 1: add clarification in intra/inter-F DAPS capabilities that UE only supports DAPS handover with source PCell and target PCell and no SCells during DAPS handover.*

*Proposal 2: add clarification that UE releases all source MCG SCells if DAPS handover command is received.*

Not treated (no online time)

Discussion on control plane aspects of DAPS HO – only treated if time allows:

[R2-2006935](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006935.zip) Support of DAPS handover without key change Intel Corporation discussion Rel-16 NR\_Mob\_enh-Core

*Proposal: To confirm, the changes on DAPS handover without key change in MAC and RRC specifications are still valid considering the network may configure DAPS handover without key change when for example ROHC is not used for any bearer of the UE.*

[R2-2007790](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007790.zip) Potential security issue on DAPS handover SHARP Corporation discussion Rel-16 LTE\_feMob-Core

*Observation 1: At DAPS handover may have security issue to reuse the same keystream when:*

*- CBRA DAPS handover with masterKeyUpdate fails and the UE falls back to the source PCell, and*

*- DAPS or normal handover with masterKeyUpdate is triggered to the same target PCell again.*

*Observation 2: it is unclear when vertical key derivation with {NH\_a, NCC\_a} pair is applied for DAPS handover, but the DAPS handover fails and the UE falls back to the source, the {NH\_a, NCC\_a} pair is treated as used or not.*

*Proposal: Send LS to SA3 to:*

*- share the potential security issue for DAPS handover,*

*- ask the ways to avoid the issue, and*

*- ask if vertical key derivation is applied for DAPS handover but the UE falls back to the source due to the DAPS HOF, the {NH, NCC} pair is treated as used or not.*

[R2-2007791](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007791.zip) [Draft] LS to SA3 on security handling for DAPS handover SHARP Corporation LS out Rel-16 LTE\_feMob-Core To:SA3

[R2-2007903](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007903.zip) Clarification on the UEAssistanceInformation for DAPS vivo discussion Rel-16 NR\_Mob\_enh-Core

[R2-2007194](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007194.zip) Handling of expiry of dataInactivityTimer for DAPS NEC discussion Rel-16 LTE\_feMob-Core

By Email [204]

Miscellaneous small corrections for DAPS HO:

[R2-2007625](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007625.zip) Corrections regarding the use of DAPS terminolgy Samsung Telecommunications CR Rel-16 36.331 16.1.1 4395 - F NR\_Mob\_enh-Core

*(moved from 6.7.2)*

[R2-2007666](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007666.zip) Aligning terminologies for handling of L2 entities in DAPS Samsung CR Rel-16 38.331 16.1.0 1876 - F NR\_Mob\_enh-Core

[R2-2007456](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007456.zip) Clarification on TS38.331 for DAPS Huawei, HiSilicon CR Rel-16 38.331 16.1.0 1845 - F NR\_Mob\_enh-Core

Miscellaneous control plane for corrections DAPS HO: Re-establishment, timers, DAPS+CHO

[R2-2007311](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007311.zip) Correction on TS38.331 for RRC connection re-establishment in DAPS Huawei, HiSilicon CR Rel-16 38.331 16.1.0 1831 - F LTE\_feMob-Core

[R2-2007893](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007893.zip) Correction for PDCP status report LG Electronics Inc. CR Rel-16 36.323 16.1.0 0287 - F LTE\_feMob-Core

[R2-2008073](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008073.zip) Correction on TS36.331 for RRC connection re-establishment in DAPS Huawei, HiSilicon CR Rel-16 36.331 16.1.1 4424 - F LTE\_feMob-Core

[R2-2007274](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007274.zip) Clarification of the T304 informative table for DAPS HO Ericsson CR Rel-16 38.331 16.1.0 1819 - F NR\_Mob\_enh-Core

[R2-2007710](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007710.zip) No support of DAPS HO for a CHO candidate cell ZTE Corporation, Sanechips, Ericsson CR Rel-16 38.331 16.1.0 1888 - F NR\_Mob\_enh-Core

[R2-2007711](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007711.zip) No support of DAPS HO for a CHO candidate cell ZTE Corporation, Sanechips, Ericsson CR Rel-16 36.331 16.1.0 4406 - F LTE\_feMob-Core

Control plane for corrections DAPS HO: DRB handling

[R2-2007481](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007481.zip) Incorrect restriction for RLC UM radio bearers Ericsson CR Rel-16 36.331 16.1.1 4385 - F LTE\_feMob-Core

[R2-2007270](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007270.zip) Time misalignment in DAPS DRB configuration (Alt.1) Ericsson CR Rel-16 38.331 16.1.0 1817 - F NR\_Mob\_enh-Core

[R2-2007271](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007271.zip) Time misalignment in DAPS DRB configuration (Alt.2) Ericsson CR Rel-16 38.331 16.1.0 1818 - F NR\_Mob\_enh-Core

[R2-2007272](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007272.zip) Time misalignment in DAPS DRB configuration (Alt.1) Ericsson CR Rel-16 36.331 16.1.1 4373 - F NR\_Mob\_enh-Core, LTE\_feMob-Core

[R2-2007273](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007273.zip) Time misalignment in DAPS DRB configuration (Alt.2) Ericsson CR Rel-16 36.331 16.1.1 4374 - F NR\_Mob\_enh-Core, LTE\_feMob-Core

[R2-2007788](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007788.zip) Correction for SRB handling of DAPS HOF (36.331) SHARP Corporation CR Rel-16 36.331 16.1.1 4411 - F LTE\_feMob-Core

[R2-2007789](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007789.zip) Correction for SRB handling of DAPS HOF (38.331) SHARP Corporation CR Rel-16 38.331 16.1.0 1904 - F LTE\_feMob-Core

[R2-2007268](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007268.zip) Correction to RLC entities creation for DAPS Ericsson CR Rel-16 38.331 16.1.0 1816 - F NR\_Mob\_enh-Core

[R2-2007269](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007269.zip) Correction to RLC entities creation for DAPS Ericsson CR Rel-16 36.331 16.1.1 4372 - F NR\_Mob\_enh-Core

* The above inputs are handled in discussion [204]
* [AT111-e][204][MOB] DAPS corrections (Huawei)

Scope:

* + - Collect companies’ feedback for the contributions under 7.4.2 marked for this email discussion
    - Proponents may provide updated versions (if needed) under this email discussion (Tdoc numbers can be requested for this purpose from the session chair or the RAN2 secretary)

Intended outcome:

* + - Discussion summary in [R2-2008134](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008134.zip) (by email rapporteur).
    - Email discussion report treated during the 2nd online session, but session chair may propose intermediate conclusions after summary is available

Deadline for providing comments, for rapporteur inputs, conclusions and CR finalization:

* + - Deadline for companies' feedback: Thursday 2020-08-20 09:00 UTC
    - Deadline for rapporteur's summary (in [R2-2008134](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008134.zip)): Friday 2020-08-21 09:00 UTC
    - Deadline for CR finalization (for agreed CRs): Thursday 2020-08-27 07:00 UTC

By Email [205]

DAPS RLF issues:

[R2-2006682](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006682.zip) Corretion on the RLF for LTE DAPS vivo CR Rel-15 36.331 15.10.0 4353 - F LTE\_feMob-Core

[R2-2007310](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007310.zip) Correction on TS38.331 for RLF handling in DAPS Huawei, HiSilicon CR Rel-16 38.331 16.1.0 1830 - F LTE\_feMob-Core

[R2-2007503](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007503.zip) Corretion on the RLF for NR DAPS vivo CR Rel-16 38.331 16.1.0 1850 - F NR\_Mob\_enh-Core

[R2-2008072](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008072.zip) Correction on TS36.331 for RLF handling in DAPS Huawei, HiSilicon CR Rel-16 36.331 16.1.1 4423 - F LTE\_feMob-Core

[R2-2007665](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007665.zip) Corrections to T304 expiry during DAPS Samsung CR Rel-16 38.331 16.1.0 1875 - F NR\_Mob\_enh-Core

* The above inputs are handled in discussion [205] (see AI 6.7.5)

### 7.4.3 UE capability corrections

By Email [206]

Including UE capability aspects of LTE mobility WI.

[R2-2006932](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006932.zip) Correction on LTE MOB capability Intel Corporation, China Telecom, Samsung CR Rel-16 36.331 16.1.1 4362 - F LTE\_feMob-Core

[R2-2006933](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006933.zip) Correction on LTE MOB capability Intel Corporation, China Telecom, Samsung CR Rel-16 36.306 16.1.0 1779 - F LTE\_feMob-Core

[R2-2007458](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007458.zip) Correction on TS 36.331 for DAPS UE capabilities Huawei, HiSilicon CR Rel-16 36.331 16.1.1 4384 - F LTE\_feMob-Core

[R2-2007459](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007459.zip) Correction on TS 36.306 for DAPS Huawei, HiSilicon CR Rel-16 36.306 16.1.0 1781 - F LTE\_feMob-Core

* The above inputs are handled in email discussion [206]
* [AT111-e][206][MOB] UE capability corrections for mobility (China Telecom)

Scope:

* + - Collect companies’ feedback for the UE capability contributions under 6.7.4 and 7.4.3 (in case Tue Aug 18th session runs out of time) marked for this email discussion
    - Proponents may provide updated versions (if needed) under this email discussion (Tdoc numbers can be requested for this purpose from the session chair or the RAN2 secretary)

Intended outcome:

* + - Discussion summary in [R2-2008136](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008136.zip) (by email rapporteur).
    - Email discussion report treated during the 2nd online session, but session chair may propose intermediate conclusions after summary is available

Deadline for providing comments, for rapporteur inputs, conclusions and CR finalization:

* + - Deadline for companies' feedback: Friday 2020-08-21 09:00 UTC
    - Deadline for rapporteur's summary (in [R2-2008136](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008136.zip)): Monday 2020-08-24 12:00 UTC
    - Deadline for CR finalization (for agreed CRs): Thursday 2020-08-27 07:00 UTC

### 7.4.4 Other corrections

Only corrections not fitting other agenda items.

Including CHO aspects that are LTE-specific without equivalent NR impacts.

# WEB CONFERENCE THURSDAY AUGUST 20TH

# 4 EUTRA corrections Rel-15 and earlier

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

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

## 4.5 Other LTE corrections Rel-15 and earlier

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

Including outcome of [Post110-e][254][LTE Capa] TDD/FDD differentiation or Rel-15 and earlier (Huawei)

Including outcome of [Post110-e][255][LTE CA] Clarification on non-contigous CA capabilities (Nokia)

By Web Conf (Thursday August 20th)

Rel-12: Outcome of [Post110-e][255][LTE CA] Clarification on non-contigous CA capabilities (Nokia)

[R2-2007517](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007517.zip) Summary on [Post110e-][255][LTE CA] Clarification on non-contiguous CA capabilities (Nokia) Nokia, Nokia Shanghai Bell discussion Rel-12 LTE\_CA-Core Late

*Conclusion 1: For the UE supporting intra-band non-contiguous CA, original signalled MIMO capability is coupled with other capability dimensions, including bandwidth/bandwidth class. For the UE supporting intra-band non-contiguous CA, if the capability at other dimensions are the same, swapping of MIMO capability across different band entries should be feasible. Swapping across band entries is feasible as long as concerns swapping of the whole set of capabilities for each band entry.*

*For the UE supporting intra-band non-contiguous CA, for which BCS allows band entries with different bandwidths, the MIMO supported layers cannot be swapped, i.e. the UE signals explicitly MIMO layers support per band entry.*

*Conclusion 2: Current TS36.306 and TS36.331 are not clyster clear on how to interpet the UE capabilities indicating support for a BC involving intra-band non-contiguous CA. There is a converging understanding based on RAN2 discussions according to Conclusion 1.*

*Proposal 1: Work out a NOTE proposal to TS36.331 based on the text proposal given in this email discussion:*

*NOTE 6a: For multiple band entries BandParameters with the same bandEUTRA and same ca-BandwidthClassDL in a supported band combination, the UE capabilities indicated by BandParameters are agnostic to the order in which they are indicated in the bandParameterList.*

**Discussion**

- QC supports P1. Huawei also agrees.

- Ericsson thinks we need to be very sure when we modify existing UE capabilities. All UE vendors need to support this. thinks currently UEs do advertise both instances, i.e. non-agnostic BC information. QC agrees but thinks it doesn’t impact the legacy UEs: they can still repeat the signalling, and networks can interpret it both ways. Ericsson thinks no UE capabilities change between the releases, which could happen here. QC doesn’t think this is the case. Nokia aslo agrees with Ericsson that we shouldn’t affect existing UE implementations but this is not clear currently in specification. Would like to solve the ambiguity and there is no intention to change existing interpretations.

- Apple is fine with the proposal but has concern whether we know what network does: Does it understand whether UE is order-agnostic or not? Nokia clarifies network takes the UE capabilities into account but must understand them. Network may over- or under-estimate UE capabilities if the ambiguity exists. Ericsson thinks UE advertising two sets of BCs with slightly different capabilities may cause an issue if network does interpretation change. Apple thinks network interpretation change without extra signalling may be dangerous. Could be fine to have UE indicate whether it supports agnostic order. QC agrees this would be BC for sure but then Rel-12 UEs have to implement this even if they support what is already proposed. Doesn’t want new signalling.

**Agreements**

* **A NOTE will be added to TS36.331 according to the below text (as per email discussion outcome):**

*NOTE 6a: For multiple band entries BandParameters with the same bandEUTRA and same ca-BandwidthClassDL in a supported band combination, the UE capabilities indicated by BandParameters are agnostic to the order in which they are indicated in the bandParameterList.*

* **CR cover page can be discussed over email discussion**
* **Discuss CRs from Rel-12 (as per previous meeting agreement) over email discussion [217] (Nokia), deadline will be Wednesday 26.8 UTC 07:00**
* [AT111-e][217][LTE] CRs for Clarification on non-contiguous CA capabilities (Nokia)

Scope:

* + - Provide CRs from Rel-12 onwards based on online decisions for [R2-2007517](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007517.zip)

Intended outcome:

* + - Agreeable RRC CRs in [R2-2008152](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008152.zip) (Rel-12), [R2-2008153](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008153.zip) (Rel-13), [R2-2008154](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008154.zip) (Rel-14), [R2-2008155](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008155.zip) (Rel-15), [R2-2008156](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008156.zip) (Rel-16) – CR numbers should be requested from RAN2 secretary

Deadline for providing comments and for rapporteur inputs:

* + - Deadline for CR finalization: Wednesday 2020-08-26 07:00 UTC

By Email [217]

[R2-200815](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007554.zip)2 Corrections to the field descriptions for TDD/FDD capability differentiation Nokia, Nokia Shanghai Bell CR Rel-12 36.331 12.18.0 XXXX - F LTE\_CA-Core, TEI12

[R2-200815](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007554.zip)3 Corrections to the field descriptions for TDD/FDD capability differentiation Nokia, Nokia Shanghai Bell CR Rel-13 36.331 13.15.0 XXXX - A LTE\_CA-Core, TEI12

[R2-200815](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007554.zip)4 Corrections to the field descriptions for TDD/FDD capability differentiation Nokia, Nokia Shanghai Bell CR Rel-14 36.331 14.14.0 XXXX - A LTE\_CA-Core, TEI12

[R2-200815](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007554.zip)5 Corrections to the field descriptions for TDD/FDD capability differentiation Nokia, Nokia Shanghai Bell CR Rel-15 36.331 15.10.0 XXXX - A LTE\_CA-Core, TEI12

[R2-200815](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007554.zip)6 Corrections to the field descriptions for TDD/FDD capability differentiation Nokia, Nokia Shanghai Bell CR Rel-16 36.331 16.1.1 XXXX - A LTE\_CA-Core, TEI12

NOTE TO CHAIR: CORRECT DOCUMENT TITLES

**Online Friday 28th**

* Ericsson indicates [217] was not kicked off. Nokia clarifies the CRs were uploaded but announcement was not made. Ericsson would like more time to check. Nokia thinks the comments were supposed to be for the cover page. Ericsson has some concerns on this as thinks it’s a signalling optimization. Nokia clarifies this is not a signalling optimization but interpretation issue at network side.
* QC thinks only cover page changes are needed. Nokia indicates title is now “clarification”. Doesn’t mention signaling optimization. Ericsson thinks devices implementing this will signal fewer BCs so it affects signalling.
* Ericsson still has concerns on this and wouldn’t like to agree to the CRs.
* Nokia objects to talking about this as signalling optimization. The CRs intent to clarify network interpretation of the signalling. May underestimate UE capabilities without this.

**=> 1-week email discussion to complete the CRs as per previous decisions (expected that comments are for cover page).**

* [Post111-e][xx][LTE] Completed CRs for intra-band contiguous(Nokia)

Scope: Finalize the CRs

Intended outcome: Agreed CRs

Deadline: Short

By Web Conf (Thursday August 20th)

Rel-12...Rel-15: Outcome of [Post110-e][254][LTE Capa] TDD/FDD differentiation or Rel-15 and earlier (Huawei)

[R2-2007556](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007556.zip) Report of [Post110-e][254][LTE Capa] TDD/FDD differentiation or Rel-15 and earlier (Huawei) Huawei, HiSilicon discussion Rel-15 TEI15

*Summary of proposals:*

*Proposal 1: Update the Rel-14 and earlier FFS/TBD capability field descriptions to indicate a value in the column for FDD/ TDD diff.*

*Proposal 2.1: Introduce a field description for zoneBasedPoolSelection-r14*

*Proposal 2.2: Discuss what to do with the capabilities nzp-CSI-RS-AperiodicInfo-r14 and nzp-CSI-RS-PeriodicInfo-r14.*

*Proposal 3.1: Update the field descriptions of parameters in PhyLayerParameters-v1530, v1540, v1550*

*Proposal 3.3: Further discuss and clarify how to set crs-IM-TM1-toTM9-OneRX-Port, cch-IM-RefRecTypeA-OneRX-Port, ce-CRS-IntfMitig, mimo-CBSR-AdvancedCSI, slotPDSCH-TxDiv-TM8*

*Proposal 4: Introduce the changes in Rel-15 with early implementation allowed for the capabilities corresponding to an earlier release.*

**Discussion**

- Huawei indicates only 3 companies provided responses. For pre-Rel-14 TBD/FFS, most values would be “yes”.

*Proposal 1: Update the Rel-14 and earlier FFS/TBD capability field descriptions to indicate a value in the column for FDD/ TDD diff.*

- Lenovo thinks we should do nothing and ask RAN1 input. This doesn’t do harm but there weren’t many responses. Samsung agrees with Lenovo. We could ask RAN1 if needed. Ericsson agrees and thinks we can do this also later on. Apple agrees.

- QC is OK with the proposal. Huawei thinks the ASN.1 allows differentiation so this wouldn’t really change anything, so it would be good to be clear.

- Chair wonders if we need to send LS to RAN1 to ask their view? QC thinks we can correct the errors (e.g. dash when signalling allows differentiation) but is fine to send LS to RAN1. Lenovo thinks we could involve RANP.

*Proposal 2.1: Introduce a field description for zoneBasedPoolSelection-r14*

- QC thinks this is not needed as Rel-15 already handles this and the capability is not differentiated.

*Proposal 2.2: Discuss what to do with the capabilities nzp-CSI-RS-AperiodicInfo-r14 and nzp-CSI-RS-PeriodicInfo-r14.*

- Lenovo thinks this can be postponed as this is not straightforward topic. Chair thinks we could ask RAN1 to clarify this. QC agrees we could include this in the CR.

*Proposal 3.3: Further discuss and clarify how to set crs-IM-TM1-toTM9-OneRX-Port, cch-IM-RefRecTypeA-OneRX-Port, ce-CRS-IntfMitig, mimo-CBSR-AdvancedCSI, slotPDSCH-TxDiv-TM8*

- Lenovo thinks these were resolved already as follows: first two ones (*crs-IM-TM1-toTM9-OneRX-Port, cch-IM-RefRecTypeA-OneRX-Port*) to “no”, the third one (*ce-CRS-IntfMitig*) to “yes”. For *mimo-CBSR-AdvancedCSI* we need to decide whether we change the signalling to be per band.

**Agreements**

* Send LS to RAN1 informing them of what we discovered (e.g. FFS/TBD) and ask them if they have objections. include our CR drafts and indicate RAN2 intends to agree to them in the next meeting if no objections are raised.
* Dont’ add a field description for zoneBasedPoolSelection-r14.
* Update the field descriptions of parameters in PhyLayerParameters-v1530, v1540, v1550
* Include question on FFS values for nzp-CSI-RS-AperiodicInfo-r14 and nzp-CSI-RS-PeriodicInfo-r14 in RAN1 LS.
* RAN2 intends to introduce the changes in Rel-15 with early implementation allowed for the capabilities corresponding to an earlier release.
* Email discussion [218] (Huawei): LS to RAN1 , including updated draft CRs based on 7554 and 7555.
* [AT111-e][218][LTE] TDD/FDD differentiation or Rel-15 and earlier (Huawei)

Scope:

* + - Update CRs in [R2-2007554](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007554.zip) and [R2-2007555](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007555.zip) according to online agreements
    - Draft LS to RAN1 informing them if RAN2 findings and asking if they have objections to RAN2 conclusions (as per online conclusions)

Intended outcome:

* + - Agreeable RRC CRs in [R2-2008157](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008157.zip) (Rel-15, CR4389), [R2-2008158](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008158.zip) (Rel-16, CR4390)
    - Draft LS to RAN1

Deadline for providing comments and for rapporteur inputs:

* + - Deadline for CR finalization: Thursday 2020-08-28 07:00 UTC

By Email [218]

[R2-2007554](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007554.zip) Corrections to the field descriptions for TDD/FDD capability differentiation Huawei, HiSilicon CR Rel-15 36.331 15.10.0 4389 - F TEI15

* Revised in [R2-2008157](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008157.zip)

[R2-2007555](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007555.zip) Corrections to the field descriptions for TDD/FDD capability differentiation Huawei, HiSilicon CR Rel-16 36.331 16.1.0 4390 - A TEI15

* Revised in [R2-2008158](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008158.zip)

[R2-2008157](C:\\Users\\terhentt\\Documents\\Tdocs\\RAN2\\RAN2_111-e\\R2-2008157.zip) Corrections to the field descriptions for TDD/FDD capability differentiation Huawei, HiSilicon CR Rel-15 36.331 15.10.0 4389 1 F TEI15

* [218] Postponed

[R2-2008158](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008158.zip) Corrections to the field descriptions for TDD/FDD capability differentiation Huawei, HiSilicon CR Rel-16 36.331 16.1.0 4390 1 A TEI15

* [218] Postponed

[R2-2008171](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008171.zip) LS on Incomplete LTE Physical Layer Capabilities RAN2 LS out Rel-15 TEI15 To: RAN1

* [218] Approved

**Online Friday 28th**

* Lenovo points out that CR drafts were not included so would like to remove the agreement on that.
* Lenovo would like to postpone RAN2 actions on this until RAN1 reply.

**Revised agreement**

* Send LS to RAN1 informing them of what we discovered (e.g. FFS/TBD) and ask them if they have objections. Indicate RAN2 intends to changes to them if no objections are raised.

By Web Conf (Thursday August 20th)

*Rel-15 HRLLC: PDCP re-establishment with RoHC and t-Reordering (new topic but related to RAN2#110-e correction*

[R2-2008022](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008022.zip) ROHC decompression failure at PDCP re-establishment Samsung discussion Rel-15 TEI15, LTE\_HRLLC-Core

*Proposal. Upon PDCP re-establishment, if drb-ContinueROHC is not configured and if the associated RLC entity is configured with rlc-OutOfOrderDelivery, the receiving PDCP entity performs header decompression for stored PDCP PDUs before header decompression reset.*

Discussion

- QC agrees there is an issue if RoHC is supported with OoO delivery. Simpler approach would be to disallow RoHC with OoOD. It’s not allowed in NR. Samsung thinks reordering is different in LTE and NR and this is now the same situation as in NR.

- Ericsson wonder if this is in NR specifications? Samsung indicates this is part of NR PDCP. Only difference is whether RLC entity is configured. This is also discussed in Rel-16 IIoT but that hasn’t concluded yet. Ericsson agrees this is similar so we should align how IIoT does it.

* Postponed

[R2-2008023](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008023.zip) CR on PDCP re-establishment when t-Reordering is used Samsung CR Rel-15 36.323 15.6.0 0288 - F TEI15, LTE\_HRLLC-Core

* Postponed

[R2-2008027](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008027.zip) CR on PDCP re-establishment when t-Reordering is used Samsung CR Rel-16 36.323 16.1.0 0289 - F LTE\_HRLLC-Core, TEI16

* Postponed

By Email [201]

*Rel-14: PDU generation for UL spatial multiplexing (postponed in RAN2#110-e with intent to agree CR in this meeting):*

[R2-2007719](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007719.zip) Correction on PDU generation for UL spatial multiplexing – Option 1 ASUSTeK CR Rel-14 36.321 14.12.0 1497 - F LTE\_LATRED\_L2-Core, TEI14

[R2-2007720](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007720.zip) Correction on PDU generation for UL spatial multiplexing – Option 2 ASUSTeK CR Rel-14 36.321 14.12.0 1498 - F LTE\_LATRED\_L2-Core, TEI14

[R2-2007721](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007721.zip) Correction on PDU generation for UL spatial multiplexing – Option 1 ASUSTeK CR Rel-15 36.321 15.9.0 1499 - A LTE\_LATRED\_L2-Core, TEI14

[R2-2007722](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007722.zip) Correction on PDU generation for UL spatial multiplexing – Option 2 ASUSTeK CR Rel-15 36.321 15.9.0 1500 - A LTE\_LATRED\_L2-Core, TEI14

[R2-2007723](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007723.zip) Correction on PDU generation for UL spatial multiplexing – Option 1 ASUSTeK CR Rel-16 36.321 16.1.0 1501 - A LTE\_LATRED\_L2-Core, TEI14

[R2-2007724](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007724.zip) Correction on PDU generation for UL spatial multiplexing – Option 2 ASUSTeK CR Rel-16 36.321 16.1.0 1502 - A LTE\_LATRED\_L2-Core, TEI14

By Email [201]

*Rel-15: Miscellaneous small corrections:*

[R2-2007843](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007843.zip) Minor changes collected by Rapporteur Samsung CR Rel-15 36.331 15.10.0 4413 - F TEI15

* Revised in [R2-2008159](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008159.zip)

[R2-2007579](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007579.zip) Corrections on idle mode measurements Ericsson CR Rel-15 36.300 15.10.0 1305 - F LTE\_euCA-Core

* Revised in [R2-2008161](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008161.zip)
* Rel-16 shadow is needed, to be provided in [R2-2008162](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008162.zip)

[R2-2007589](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007589.zip) Corrections on idle mode measurements Ericsson Inc. CR Rel-15 36.331 15.10.0 4392 - F LTE\_euCA-Core

* Revised in [R2-2008163](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008163.zip)
* Rel-16 shadow is needed, to be provided in [R2-2008164](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008164.zip)
* The above inputs are handled in discussion [201]
* [AT111-e][201][LTE] LTE Miscellaneous Rel-15/16 corrections (Samsung)

Scope:

* + - Discuss the CRs under AI 4.5, 7.1.3 and 7.5 marked for this email discussion

Intended outcome:

* + - Discussion summary in [R2-2008131](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008131.zip) (by email rapporteur)
    - Agreeable CRs by proponents (if revised versions are required, proponents should obtain Tdoc numbers from session chair or RAN2 secretary to provide those)

Deadline for providing comments and for rapporteur inputs:

* + - Initial deadline (for companies' feedback): Wednesday 2020-08-19 10:00 UTC
    - Initial deadline (for rapporteur's summary in [R2-2008131](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008131.zip)): Thursday 2020-08-20 08:00 UTC
    - Deadline for CR finalization: Wednesday 2020-08-26 07:00 UTC

By Web Conf (Thursday August 20th)

[R2-200813](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_110-e/Docs/R2-2005741.zip)1 Summary of offline 201 - LTE Miscellaneous Rel-15/16 corrections Samsung discussion Late

*Proposal 1.* [*R2-2007719*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007719.zip)*,* [*R2-2007721*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007721.zip) *and* [*R2-2007723*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007723.zip) *are agreed without changes:*

*Proposal 2.* [*R2-2007579*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007579.zip) *and* [*R2-2007589*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007589.zip) *are agreed with some changes i.e. revision is required including companies’ feedback.*

*Proposal 3. Postpone the decision on “agree” or “agree with change” for* [*R2-2007655*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007655.zip) *until NB-IoT session make decision on handling of PUR-RNTI.*

*- If NB-IoT session decides to include the PUR-RNTI related changes in* [*R2-2007655*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007655.zip) *into another CR (*[*R2-2008308*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008308.zip)*), this change should be removed from the revised CR. Otherwise, this CR is agreed as is.*

*Proposal 4.* [*R2-2007843*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007843.zip) *and* [*R2-2007844*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007844.zip) *are agreed with changes: revision is required including companies’ feedback.*

**Discussion**

- Ericsson indicated (during email discussion 201) that the NB-IoT session decided to include the PUR-RNTI related changes in [R2-2007655](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007655.zip) into another CR ([R2-2008308](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008308.zip)). This means R2-007655 should be revised to remove the PUR-RNTI related changes, if the CR is agreed.

P2

- Lenovo thinks also Rel-16 shadows need to be provided.

**Agreements**

* [R2-2007719](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007719.zip), [R2-2007721](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007721.zip) and [R2-2007723](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007723.zip) are agreed without changes

**Email discussion [219]: Provide updated CRs for email approval. Deadline Wednesday 26.8. UTC 09:00**

* Intention of [R2-2007579](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007579.zip) and [R2-2007589](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007589.zip) is agreed – revisions based on discussion feedback and Rel-16 shadows are needed
* Intention of [R2-2007843](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007843.zip) and [R2-2007844](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007844.zip) is agreed – revisions based on discussion feedback are needed
* The PUR-RNTI related changes in [R2-2007655](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007655.zip) should be removed. Provide revised CR over email discdussion to be agreed.
* [AT111-e][219][LTE] Revised Rel-15/16 LTE corrections (RAN2 VC)

Scope:

* + - Provide agreeable versions of updated contributions [R2-2007579](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007579.zip) (CR1305, 36.300), [R2-2007589](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007589.zip) (CR4392, 36.331), [R2-2007843](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007843.zip) (CR4413, 36.331), [R2-2007844](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007844.zip) (CR4414, 36.331) and [R2-2007655](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007655.zip) (CR1495, 36.321) according to online agreements

Intended outcome:

* + - Revised CRs that are agreeable by each proponent as follows:
      * [R2-2007579](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007579.zip) --> [R2-2008161](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008161.zip), Rel-16 shadow in [R2-2008162](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008162.zip)
      * [R2-2007589](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007589.zip) --> [R2-2008163](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008163.zip), Rel-16 shadow in [R2-2008164](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008164.zip)
      * [R2-2007843](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007843.zip) --> [R2-2008159](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008159.zip)
      * [R2-2007844](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007844.zip) --> [R2-2008160](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008160.zip)
      * [R2-2007655](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007655.zip) --> [R2-2008165](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008165.zip)

Deadline for providing comments and for rapporteur inputs:

* + - Deadline for CR finalization: Wednesday 2020-08-26 09:00 UTC

By Email [219]

[R2-2008159](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008159.zip) Minor changes collected by Rapporteur Samsung CR Rel-15 36.331 15.10.0 4413 1 F TEI15 [R2-2007843](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007843.zip)

[R2-2008161](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008161.zip) Corrections on idle mode measurements Ericsson CR Rel-15 36.300 15.10.0 1305 1 F LTE\_euCA-Core [R2-2007579](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007579.zip)

[R2-2008162](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008162.zip) Corrections on idle mode measurements Ericsson CR Rel-16 36.300 16.2.0 XXXX - A LTE\_euCA-Core

[R2-2008163](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008163.zip) Corrections on idle mode measurements Ericsson Inc. CR Rel-15 36.331 15.10.0 4392 1 F LTE\_euCA-Core [R2-2007589](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007589.zip)

[R2-2008164](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008164.zip) Corrections on idle mode measurements Ericsson Inc. CR Rel-16 36.331 16.1.1 XXXX - A LTE\_euCA-Core

*Withdrawn:*

[R2-2007580](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007580.zip) Corrections on idle mode measurements Ericsson CR Rel-15 38.300 15.10.0 0283 - F LTE\_euCA-Core Withdrawn

# 7 Rel-16 EUTRA Work Items

Essential corrections

## 7.1 EUTRA Rel-16 General

### 7.1.1 Cross WI RRC corrections

By Web Conf (Thursday August 20th)

[R2-2007737](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007737.zip) Correction on RRC re-establishment procedure ASUSTeK CR Rel-16 36.331 16.1.1 4407 - F TEI16

*Add an else condition for a UE, other than NB-IoT UE without activated AS security, to initiate transmission of the RRCConnectionReestablishmentRequest message:*

*3> else:*

*4> initiate transmission of the RRCConnectionReestablishmentRequest message in accordance with 5.3.7.4;*

[R2-2006839](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006839.zip)    Correction on initiation of RRCConnectionReestablishmentRequest Ericsson, ETRI  CR        Rel-16   36.331  16.1.1   4355     -           F          NB\_IOTenh3-Core

*(moved from 7.3.4, issue introduced by NB-IoT CR but affects non-NB-IoT UEs)*

*The deleted text procedure for initiation of RRCConnectionReestablishmentRequest is provided*

**Discussion**

- Huawei thinks we should rather revert to Rel-15 text. QC agrees with Huawei that there is an issue.

- Ericsson wonders how the Rel-16 can capture the impacts? Huawei clarifies there are no impacts.

* RAN2 agrees there is a problem with current specification for re-establishment as indicated by above.
* Offline [220] (Huawei): Discuss CR to fix the above issue. Deadline: Thursday 27.8 UTC 09:00.
* [AT111-e][220][LTE] Correction on RRC re-establishment procedure (Huawei)

Scope:

* + - Discuss the issue identified as per [R2-2007737](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007737.zip) and [R2-2006839](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006839.zip) and provide agreeable CR

Intended outcome:

* + - Agreed CR in [R2-2008166](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008166.zip) (CR number needs to be requested from MCC)

Deadline for providing comments and for rapporteur inputs:

* + - Deadline for CR finalization: Thursday 2020-08-27 09:00 UTC

By Email [220]

[R2-2008166](C:\\Users\\terhentt\\Documents\\Tdocs\\RAN2\\RAN2_111-e\\R2-2008166.zip)    Correction on initiation of RRCConnectionReestablishmentRequest Huawei, HiSilicon, Ericsson, ETRI, ASUSTeK CR        Rel-16   36.331  16.1.1   4433     -           F          NB\_IOTenh3-Core, TEI16

* [220] Agreed

By Web Conf (Thursday August 20th)

[R2-2006850](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006850.zip) Correction on schedulingRequestConfig release ZTE Corporation, Sanechips CR Rel-16 36.331 16.1.1 4357 - F NB\_IOTenh3-Core

*(moved from 7.3.4, related to LTE mobility enhancements)*

*Delete the description “4> for NB-IoT, release schedulingRequestConfig, if configured” under the condition of “3> if the UE is configured with conditionalReconfiguration:”.*

- Huawei thinks that in addition, we should remove “4> except for NB-IoT,” from the previous line. ZTE agrees.QC thinks we need to capture this in the coversheet as well.

* Offline [221] (ZTE): Discuss updated CR according to above. Deadline: Thursday 27.8 UTC 09:00.
* [AT111-e][221][LTE] Correction on schedulingRequestConfig release (ZTE)

Scope:

* + - Discuss and provide agreeable CR based on [R2-2006850](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006850.zip)

Intended outcome:

* + - Agreed CR in [R2-2008167](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008167.zip) (CR4357R1, 36.331)

Deadline for providing comments and for rapporteur inputs:

* + - Deadline for CR finalization: Thursday 2020-08-27 09:00 UTC

By Email [221]

[R2-2008167](C:\\Users\\terhentt\\Documents\\Tdocs\\RAN2\\RAN2_111-e\\R2-2008167.zip) Correction on schedulingRequestConfig release ZTE Corporation, Sanechips CR Rel-16 36.331 16.1.1 4357 1 F NB\_IOTenh3-Core [R2-2006850](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006850.zip)

* [221] Agreed

### 7.1.2 Feature Lists and UE capabilities

By Web Conf (Thursday August 20th)

[R2-2006512](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006512.zip) LS on further updated Rel-16 RAN1 UE features list for LTE (R1-2005118; contact: NTT DOCOMO, AT&T) RAN1 LS in Rel-16 LTE\_eMTC5-Core, NB\_IOTenh3-Core, LTE\_DL\_MIMO\_EE-Core, LTE\_terr\_bcast-Core, 5G\_V2X\_NRSL-Core, TEI16 To:RAN2 Cc:RAN4

*Regarding the column “Need for the UE to know if the feature is supported (only for V2X WI, where the PC5-RRC capability signaling is delivered between the UEs)”, RAN1 would like to clarify that NR PC5-RRC signaling is still applicable for the equivalent FG in the NR feature list and that N/A in the LTE list means that there is no signaling of this in the LTE RAT.*

* Noted (not presented, WI rapporteurs are expected to check and provide CRs if capability updates are needed)

[R2-2006525](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006525.zip) LS on Rel-16 RAN4 UE features lists for LTE and NR (R4-2009173; contact: NTT DOCOMO) RAN4 LS in Rel-16 To:RAN2 Cc:RAN1

*RAN4 kindly would like to ask RAN2 to take into account the list of RAN4 UE features for designing corresponding capability signalling in Rel-16.*

* Noted (not presented, WI rapporteurs are expected to check and provide CRs if capability updates are needed)

### 7.1.3 Other

Other issue that do not fit under any other topic.

By Email [201]

[R2-2007655](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007655.zip) Editorial changes Ericsson CR Rel-16 36.321 16.1.0 1495 - F LTE\_eMTC5-Core, NB\_IOTenh3-Core, 5G\_V2X\_NRSL-Core

* The above inputs are handled in discussion [201]
* Revised in [R2-2008165](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008165.zip)

By Email [219]

[R2-2008165](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008165.zip) Editorial changes Ericsson CR Rel-16 36.321 16.1.0 1495 1 F LTE\_eMTC5-Core, NB\_IOTenh3-Core, 5G\_V2X\_NRSL-Core [R2-2007655](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007655.zip)

## 7.5 LTE Other WIs

(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)

By Email [201]

[R2-2007844](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007844.zip) Minor changes collected by Rapporteur Samsung CR Rel-16 36.331 16.1.1 4414 - F LTE\_high\_speed\_enh2-Core, TEI16

* The above inputs are handled in discussion [201]
* Revised in [R2-2008160](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008160.zip)

By Email [219]

[R2-2008160](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008160.zip) Minor changes collected by Rapporteur Samsung CR Rel-16 36.331 16.1.1 4414 1 F LTE\_high\_speed\_enh2-Core, TEI16 [R2-2007844](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007844.zip)

Postpone to next meeting

[R2-2007518](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007518.zip) Clarification to Fallback band combination definition Nokia, Nokia Shanghai Bell CR Rel-16 36.306 16.1.0 1782 - F TEI16

*(moved from 4.5)*

1. *Clarification that “a band” in relation between fallback band combinations and the parent band combinations concerns “a band entry”*

* Postponed

[R2-2007697](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007697.zip) Correction on T312 timer information ZTE Corporation, Sanechips CR Rel-16 36.331 16.1.0 4401 - F HetNet\_eMOB\_LTE-Core

*(moved from 4.5, postponed in RAN2#110-e)*

1. *Introduce corresponding changes for the start condition and expiry of the timer T312 in LTE spec, as adopted in NR spec.*

* Postponed

# WEB CONFERENCE MONDAY AUGUST 24TH

# 8 Rel-17 NR Work Items

## 8.8 RAN slicing SI

(FS\_NR\_slice; leading WG: RAN2; REL-17; WID: RP-193254)

Time budget: 0.5 TU

Tdoc Limitation: 1 tdocs

Email max expectation: 1 threads

Expect to reply to outstanding LSes, could also have an initial discussion on the scope/requirements.

By Web Conf (Tuesday August 25th)

*RAN2 in To-field, will be presented online:*

[R2-2006527](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006527.zip) Reply LS on GSMA NG.116 Attribute Area of service and impact on PLMN (S1-202294; contact: Nokia) SA1 LS in Rel-17 FS\_eNS\_Ph2 To:SA2, CT1, RAN2, RAN3, GSMA 5GJA, GSMA WAS

- Lenovo is concerned that some of the Rel-18 topics is overlapping with our study so we should discuss during each topic whether we should study or not

=> Noted

[R2-2006656](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006656.zip) LS on 5GC assisted cell selection for accessing network slice (S2-2001728; contact: ZTE) SA2 LS in Rel-17 FS\_eNS\_Ph2 To:SA1, RAN2, RAN3

=> Noted

*RAN2 in CC, to be noted unless flagged:*

[R2-2006513](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006513.zip) Response to 5GC assisted cell selection for accessing network slice (R3-202558; contact: ZTE) RAN3 LS in Rel-17 FS\_NR\_slice To:SA2 Cc:RAN,RAN2,SA1

=> Noted

[R2-2006534](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006534.zip) LS on SA5 Rel-17 work on SLA (S5-203370; contact: CMCC) SA5 LS in Rel-17 EMA5SLA To:GSMA 5GJA, SA2, RAN3, IETF TEAS WG Cc:SA, SA1, SA6, RAN2, ETSI ISG ZSM

=> Noted

[R2-2006655](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006655.zip) LS on 5GC assisted cell selection for accessing network slice (S1-202264; contact: ZTE) SA1 LS in Rel-17 FS\_eNS\_Ph2 To:SA2 Cc:RAN2, RAN3

=> Noted

*Work plan and TR skeleton:*

[R2-2007420](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007420.zip) Work Plan for RAN Slicing CMCC, ZTE discussion Rel-17 FS\_NR\_slice

- Nokia is asking if CMCC is planning to bring up to the plenary that the timeplan is very aggressive and update it.

- CMCC thinks we can try to progress and then in November make a final decision

=> Noted

[R2-2007419](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007419.zip) Skeleton for TR 38.832 CMCC draft TR Rel-17 38.832 0.0.0 FS\_NR\_slice

=> Noted and move it to email discussion

*Operator input (use cases and deployment scenarios):*

[R2-2007716](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007716.zip) Scenarios and requirements for RAN slicing SoftBank Corp. discussion Rel-17 FS\_NR\_slice

*Proposal 1: Different slices deploying across different frequency bands is considered as the deployment scenario.*

*Proposal 2: Multiple slices deploying on single frequency band is considered as the deployment scenario.*

*Proposal 3:*

*- For the cell (re-)selection, the UE should consider slice information supporting on the cell.*

*- A solution should be applicable to the initial access (i.e. registration).*

*- Slice related cell selection information should be provided in the system information.*

*Proposal 4:*

*- For the cell supporting multiple slices, the network needs a mechanism to prioritize an access attempt for intended slice.*

*- Combination of slice based RACH configuration and access barring should be considered.*

*- SD-specific access barring should be considered.*

[R2-2007421](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007421.zip) Discussion on support of RAN slicing CMCC discussion Rel-17 FS\_NR\_slice

*Proposal 1: RAN2 can discuss our own scenarios, requirements and solutions independently from SA2.*

- Samsung understands that we can discuss our scenarios but we should check with SA2.

- Nokia thinks that there are also SA2 scenarios that have RAN2 impact.

=> RAN2 can discuss the scenarios and requirements from a RAN2 perspective and then inform SA2 and RAN3

*Proposal 2: 1 or multiple slices can be supported on each cell of each frequency.*

*Proposal 3: The frequency priorities for different slices can be different.*

*Proposal 4: Broadcasting frequency priorities per slice in system information is captured as candidate solution.*

*Proposal 5: Different RACH resources can be configured for slices.*

*-* Intel ask if we can have different TAs for area 1 or 2. CMCC thinks that TA discussion needs to take place in SA2 and it can be left up to implementation.

- Qualcomm and Samsung has the same understanding as CMCC and in RAN2 we don’t need to have the discussion and we can focus on the user scenario and we can send an LS to SA2.

- Lenovo think that if the UE is area2 it may not be able to access URLLC as the deployments might not be homogenous. CMCC thinks that it aligns with their specific scenario.

=> TA discussion will not take place in RAN2, we will wait for SA2 input

*Discussions*

*Proposal 1: Different slices deploying across different frequency bands is considered as the deployment scenario.*

*Proposal 2: Multiple slices deploying on single frequency band is considered as the deployment scenario.*

*Proposal 2: 1 or multiple slices can be supported on each cell of each frequency.*

*Proposal 3: The frequency priorities for different slices can be different.*

- Google thinks that this is a valid scenario and it is up to network implementation.

- BT would agree that this is a valid scenario and prioritize but not to map a slice to a frequency and we can discuss this further.

- Vodafone thinks that the key part is to differentiate what we need in connected and idle mode. Further URLCC is not an idle mode service, the UE should be in connected mode.

- Huawei agrees with the scenarios

- Futurewei agrees with the scenarios and thinks we should study connected mode.

- LG thinks that we need some inputs from SA2

- Oppo thinks that the UE in connected mode is not in scope. Oppo asks if we need to slice based cell selection and we think that we should only support cell reselection

- TIM supports the study of connected mode and would also like to consider INACTIVE mode as well. For example, for URLCC this can be important if the UE goes into inactive to save power. Ericsson doesn’t think the UE should go in RRC INACTIVE if it is doing URLLC. Apple thinks that the solution for idle state can be reused for inactive.

- Erickson agrees with Intel for connected mode

- ZTE thinks that connected mode should be downprioritized

Discussion on cell selection

- Oppo asks if we need to slice based cell selection and we think that we should only support cell reselection. Google thinks that cell and re-selection go hand in hand so we should consider. Lenovo also thinks it should be part of the study.

- Apple has similar view to Lenovo

**Agreements*:***

1. Scenarios for now to be studied by RAN2:

* Multiple and different slices can be supported on different frequencies
* Multiple and different slices can be supported in the same frequency layer in different regions.

2 For each scenario we study both IDLE and INACTIVE and determine whether there is need for a solution and possible solutions. Connected mode will also be considered but with a lower priority.

3 RAN2 will study both cell selection and cell re-selection

***Discussion on solution spaces***

* The frequency priorities for different slices can be different

*-* CMCC thinks that this is more of a requirement

deployed across different frequency bands will be supported

Multiple slices deploying on single frequency band is considered as the deployment scenario

*The frequency priorities for different slices can be different*

*Broadcasting frequency priorities per slice in system information is captured as candidate solution*

*Different RACH resources can be configured for slices*

[R2-2006707](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006707.zip) Considerations on slice aware cell selection KDDI Corporation discussion

[R2-2008071](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008071.zip) Considerations scenarios on enhancing the RAN support of network slicing China Unicom discussion Rel-17 FS\_NR\_slice

*NW and UE Vendor input:*

[R2-2006970](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006970.zip) Considerations for RAN slicing Samsung Electronics Co., Ltd discussion Rel-17 FS\_NR\_slice

*Proposal 1. RAN2 is asked to study existing mechanism (e.g. dedicated priorities) is sufficient to enable UE to access the cell supporting the intended slice.*

*Proposal 2. RAN2 is asked to study slice based RACH configuration to enable UE’s fast access for the intended slice.*

*Proposal 3. RAN2 is asked to study how to handle slice based access control with utilizing existing UAC structure.*

[R2-2006767](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006767.zip) Discussion on RAN slicing enhancement Qualcomm Incorporated discussion Rel-17 FS\_NR\_slice

*Proposal 1: Discuss if dedicated priorities are sufficient for UE to support “fast access to cell supporting intended slice”*

*Proposal 4: Discuss if separate RACH configuration/parameters are needed in a cell supporting multiple slices*

*Proposal 5: Discuss if Rel-15 Unified Access Barring is sufficient to differentiate access barring control for different slices deployed on a cell*

***Discussion on dedicated priorities whether it is enough***

*-* Lenovo would like to address the case where the UE needs to move to another frequency to go to the other slice. Qualcomm thinks that the dedicate priority is not enough and it needs to be enhanced.

*-* CATT thinks that dedicate priority is not enough. Google thinks that perhaps it could be sufficient with a good choice of timers. Ericsson thinks that we can also use HO and we can solve them without UE impact.

*-* Intel thinks that we should use dedicated priority as a baseline but consider some enhancements.

*-* Vodafone thinks that we also have tracking area list as a tool to handle all of this in Rel-15.

*-* LG thinks identify what the problem is.

*-* Huawei sees some drawbacks on the solution.

=> Identify the problem with existing mechanisms with dedicated priority and study if some enhancements are needed

*Discussion on RACH*

*Proposal 2. RAN2 is asked to study slice based RACH configuration to enable UE’s fast access for the intended slice.*

- Lenovo asks how fast does the UE need to be able to change slices. After that requirement it will be easier to answer the question

- Vodafone thinks that the questions is do we have two services that want to go on two different frequencies. This is a rare scenarios and not sure this is a big problem

- T-mobile things the important case is the ability to access multiple slices at the same time. It could be good to look at what SA2 is doing.

=> RAN2 will study slice-based RACH resources/configuration and RACH parameters prioritization *to enable UE’s fast access for the intended slice.*

=> Get input during email discussion on valid use cases

*Network vendor input*

[R2-2006854](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006854.zip) Considerations on slice-based cell reselection Nokia, Nokia Shanghai Bell discussion Rel-17 FS\_NR\_slice

[R2-2007645](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007645.zip) Methods for serving slices on different frequencies Ericsson discussion Rel-17 FS\_NR\_slice

[R2-2006871](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006871.zip) Consideration on the scope and solutions for RAN slicing enhancement ZTE corporation, Sanechips discussion Rel-17 FS\_NR\_slice

[R2-2007772](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007772.zip) Considerations on enhancing the RAN support of network slicing Huawei, HiSilicon discussion Rel-17 FS\_NR\_slice

[R2-2006632](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006632.zip) Initial Discussion on the Scope and Requirements for Slicing CATT discussion Rel-17 FS\_NR\_slice

*UE Vendor input:*

[R2-2006951](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006951.zip) Slicing based cell (re)selection Intel Corporation discussion Rel-17 FS\_NR\_slice

[R2-2007088](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007088.zip) Scoping of RAN Slicing Apple discussion Rel-17 FS\_NR\_slice

[R2-2006883](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006883.zip) Considerations on scope of RAN slicing enhancements Lenovo, Motorola Mobility discussion Rel-17 FS\_NR\_slice

[R2-2007609](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007609.zip) Discussion on Network Slicing’s Impact on Cell Reselection Convida Wireless discussion FS\_NR\_slice

[R2-2007140](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007140.zip) Consideration on Rel-17 slicing OPPO discussion Rel-17 FS\_NR\_slice

[R2-2007250](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007250.zip) Assistant information to enable UE fast access network slice ITRI discussion FS\_NR\_slice

[R2-2007051](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007051.zip) Consideration on RAN slicing Spreadtrum Communications discussion

[R2-2007302](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007302.zip) Consideration on RAN slicing vivo discussion Rel-17 FS\_NR\_slice

[R2-2007402](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007402.zip) Discussion on RAN Slicing LG Electronics UK discussion Rel-17

[R2-2007521](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007521.zip) Enhancement on RAN support of network slicing Beijing Xiaomi Software Tech discussion Rel-17

[R2-2007606](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007606.zip) Considerations on Frequency Band Selection for RAN Slicing SHARP Corporation discussion Rel-17

[R2-2007607](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007607.zip) Basic requirements for RAN slicing Google Inc. discussion Rel-17 FS\_NR\_slice

*Withdrawn:*

[R2-2006528](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006528.zip) LS on 5GC assisted cell selection for accessing network slice (S1-202264; contact: ZTE) SA1 LS in Rel-17 FS\_eNS\_Ph2 To:SA2 Cc:RAN2, RAN3 Withdrawn

[R2-2006529](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006529.zip) LS on 5GC assisted cell selection for accessing network slice (S2-2001728; contact: ZTE) SA2 LS in Rel-17 FS\_eNS\_Ph2 To:SA1, RAN2, RAN3 Withdrawn

[R2-2006887](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006887.zip) 5G RAN Slicing Framework During Cell Reselection MITRE Corporation discussion Late Withdrawn

By Email [213]

* [AT111-e][213][RAN slicing] Use cases and deployment scenarios (CMCC)

Scope:

* + - Discuss use cases and deployment scenarios based on online decisions.
    - Capture agreements from this meeting in a TP to the TR

Intended outcome:

* + - Discussion summary in [R2-2008143](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008143.zip) (by email rapporteur), including TP for the TR.

Deadline for providing comments, for rapporteur inputs, conclusions and CR finalization:

* + - Deadline for companies' feedback: Wednesday 2020-08-26 12:00 UTC
    - Deadline for rapporteur's summary (in [R2-2008143](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008143.zip)): Thursday 2020-08-27 12:00 UTC

# WEB CONFERENCE TUESDAY AUGUST 25TH

## 8.2 MR DC/CA further enhancements

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

Time budget: 1 TU

Tdoc Limitation: 2 tdocs

Email max expectation: 2 threads

Focus for this meeting: a) get a common understanding of the WID b) get technical proposals on the table for questions and scrutiny.

### 8.2.1 Organizational, Requirements and Scope

Including work plan and any other rapporteur input.

By Web Conf (Monday August 24th)

Work plan:

[R2-2007676](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007676.zip) Work plan for R17 Further MR-DC enhancements WI Huawei Work Plan Rel-17 LTE\_NR\_DC\_enh2-Core

* Noted

[R2-2007677](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007677.zip) Status of the work on efficient SCell activation/deactivation Huawei discussion Rel-17 LTE\_NR\_DC\_enh2-Core

- LG wonder if PSCell activation/deactivation is also included in this.

- Huawei think we can discuss later,

- Nokia think we need to discuss

- vivo think CSI-RS measurements in deact state is a remains from R16 so maybe it can be discussed.

- CATT agrees on the proposal for SCell activation / deactivation.

- Chair: think anyway we will let R1 progress somewhat on the SCell act /. deact

* Noted

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

By Web Conf (Monday August 24th)

*Operator input:*

[R2-2007439](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007439.zip) Consideration on dormant SCG CMCC discussion Rel-17 LTE\_NR\_DC\_enh2-Core

*(moved from 8.2.3)*

DISCUSSION

- Huawei think “dormant” is not good as it implies certain solution. We should stick to the WI terminology for now. Nokia think that would indeed be ok, and most papers seems to be aligned.

- Nokia think some things need to discuss more, e.g. beam mgmt.

- LG think dormant can be a way. LG think R2 need to study new solutions, e.g. to avoid inter-node latency

- Oppo think we have several possible solutions, and think dormancy can be used for all cells except PScell and PUCCH Scell. Oppo also point out that R1 is not in this objective.

- FW think whether MN need to send the deact indication need to be discussed, this may involve a lot of delay.

- P1 Apple wonder if MN always need to be involved. Apple think there are advantages to avoiding MN involvement when possible. Apple also think there are many ways, MAC CE etc, and then the question is who construct the MAC CE. Can SCG alone do act / deact.

- ZTE think inter-node can be discussed later.

- IDT are ok, think both MN and SN control will be needed. Should try to reuse as much as possible dormant SCell for SCell handling.

- Ericsson think activation can be by MN or UE based, think UE measurements and their reporting need to be understood.

- MTK think PSCell dormancy was discussed in R16, has doubts whether this gives significant benefits. Think SN shall trigger the transition.

- QC think we first need to define the UE behaviour. Either MN or SN can initiate the procedure. QC also have concerns on using SCell dormancy for SCells, as CSI measurements will consume power. First UE behaviour.

- Intel agrees with QC, to first focus on UE, and agrees with Ericsson that we need to understand measurements and reporting.

- CMCC agrees with QC, think P1 includes UE triggered and SN triggered case.

- vivo think how fast the activation can be done is a key and dep on measurements.

P1

- IDT suggest to agree now that all nodes can trigger transitions. Nokia think we can wait.

P2

- vivo are ok with this

- Huawei think this is agreeable, this is in every proposal. QC agrees

- FW think we might need to get input from R1, whether UE would need a PUCCH or not, for UE triggered activation.

- Apple think an alternative is DRX. A question is how UE triggers an activation.

- Nokia agrees

- Apple think we shall not agree this now. Chair: Apple seems to be the only ones objecting.

P3

- Nokia think the CSI reporting and beam management we need to discuss more.

P7

- CATT think we only have one active SCG so we should only have one deactivated.

- CATT think MN makes the decision to deactivate / activate.

* FFS how signalling and inter-node interaction works at activation deactivation (e.g. MN triggered, SN triggered, UE triggered, signalling mechanism, which node is in control etc)
* FFS if for deactived SCG, the UE stop monitoring PDCCH for PSCell and SCells of the SCG
* FFS if For the PSCell in deactivated SCG, the UE performs CSI/RRM measurement and report; AGC; beam management; RLM

*NW Vendor input:*

[R2-2007678](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007678.zip) Discussion on SCG deactivation and activation Huawei, HiSilicon discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2007068](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007068.zip) On fast deactivation and activation of one SG and SCells Nokia, Nokia Shanghai Bell discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2007598](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007598.zip) Efficient SCG/SCell (de)activation Ericsson discussion LTE\_NR\_DC\_enh2-Core

[R2-2007009](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007009.zip) Efficient Activation/Deactivation Mechanism for SCG and Scells CATT discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2006900](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006900.zip) Framework of SCG deactivation and activation ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2007623](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007623.zip) Further enhancements regarding deactivation and resumption for R17 Samsung Telecommunications discussion Rel-17 LTE\_NR\_DC\_enh2-Core

*Other vendor input:*

[R2-2006756](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006756.zip) On Support of Activation/Deactivation for SCG InterDigital discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2007748](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007748.zip) Efficient SCG activation/deactivation in MR-DC Qualcomm Incorporated discussion Rel-17

[R2-2006806](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006806.zip) Discussion on SCG suspension OPPO discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2007867](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007867.zip) Discussion on SCG suspension MediaTek Inc. discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2007046](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007046.zip) Discussion on efficient activation mechanism for one SCG Spreadtrum Communications discussion

[R2-2007215](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007215.zip) Efficient activation and deactivation mechanism for SCG and SCells vivo discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2007236](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007236.zip) Enhancements for Rel-17 efficient activation/de-activation Intel Corporation discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2007986](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007986.zip) Time-efficient SCG Activation mechanism LG Electronics discussion Rel-17

[R2-2007994](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007994.zip) Discussion of SCG activation/deactivation SHARP Corporation discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2007109](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007109.zip) Scoping the usage of SCG suspension Apple discussion Rel-17 LTE\_NR\_DC\_enh2-Core

* [Post110-e][xxx][eDCCA] Efficient activation deactivation of SCG (Huawei)

Scope: a) Cover common grounds, e.g. find “easy” agreements, and items that might need limited discussion. b) Identify key performance trade-off decisions that will need to be taken.

Intended outcome: Report to next meeting

Deadline: Long

### 8.2.3 Conditional PSCell change / addition

By Web Conf (Monday August 24th)

*Operator input:*

[R2-2007438](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007438.zip) Discussion on CPAC scenarios CMCC discussion Rel-17 LTE\_NR\_DC\_enh2-Core

*(moved from 8.2.2)*

CHAIR suggest a simplification:

Proposal: Prioritize inter-SN CPC, and CPA

DISCUSSION

- CATT think we should clarify the scope of the WID, e.g. whether LTE PSCell is included, leftovers from R16 etc, and coexistence of CHO and CPC. The WID says MR-DC so LTE is included in principle. Huawei think that there is not much interest in NE-DC so maybe it is not included

- Intel think CPA has higher priority than CPC, and we can reuse old agreements. Have some doubt on the second scenario of P1. Others are ok.

- Nokia think in the beginning we should just cover the cases in the WID. Think for the moment only priority could be CPA.

- LG support Chair simplified proposal.

- Samsung think Sn initiated CPC would be a priority, and think we need to do early cases that involve R3.

- NEC are ok with chair suggestion.

- Ericsson think CPA is important as there may be new impact in R2. Ericsson think Priority here just means what we start to look at. Think LTE PSCell is not in the WID so it should be excluded.

- Oppo wonder if LTE TS impact is allowed at all. Huawei indicate that 36.331 is an impatcted TS.

- Apple Nokia are ok with removing LTE SCG. Samsung think this isn’t needed, and think we can use the word deprioritzed instead.

- Intel think that CPC and CHO is not a priority. IDT think this is a leftover from R16 so it should still be in scope. Vivo also think this is in scope, if we have time.

- Huawei think the agreement in R16 that we can configure SCG as deactivated may be similar to CPA. CATT think that UE is in charge of CPA but the network is In charge of activation.

- Chair assumes that CPC CHO coexist can be discussed later if needed.

- CATT wonder if enhancements to R16 is in scope. Huawei think that the WI doesn’t include this. Nokia think this should be included but not a priority in the beginning.

- FW also think we will need to address enhancements in R16.

* R2 assumes that the work Will follow what is in the WID, and initially focus on CPA and Inter-SN CPC
* R2 assumes for now that LTE SCG is not included.
* [Post110-e][xxx][eDCCA] Condtional PSCell Change and Addition (CATT)

Scope: Cover common grounds, e.g. confirm which old R16 agreements can be inherited now as “easy” agreements, and items that might need limited discussion.

Intended outcome: Report to next meeting

Deadline: Long

[R2-2008079](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008079.zip) Remaining issues of Conditional PSCell Addition NTT DOCOMO INC. discussion Rel-17 LTE\_NR\_DC\_enh2-Core Late

*NW Vendor input:*

[R2-2007010](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007010.zip) Scope and basic procedure for Conditional PSCell Addition/Change ??(CPAC)? CATT discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2006901](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006901.zip) Discussion on conditional PSCell addition/change ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2007679](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007679.zip) Discussion on Conditional PSCell addition/change Huawei, HiSilicon discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2007364](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007364.zip) On the scope of Rel-17 CPAC Nokia, Nokia Shanghai Bell discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2006976](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006976.zip) Overview of conditional PSCell addition NEC discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2006977](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006977.zip) Inter-SN Conditional PSCell Change NEC discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2007599](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007599.zip) Conditional reconfigurations Ericsson discussion LTE\_NR\_DC\_enh2-Core

[R2-2007624](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007624.zip) Further enhancements on conditional configuration for R17 Samsung Telecommunications discussion Rel-17 LTE\_NR\_DC\_enh2-Core

*UE/Chipset input:*

[R2-2007237](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007237.zip) Rel-17 Conditional PSCell Addition Intel Corporation discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2006695](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006695.zip) Scope and scenario for CPAC vivo discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2007130](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007130.zip) Scenarios and General Principles of CPAC ETRI discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2006805](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006805.zip) Discussion on conditional PSCell change and addition OPPO discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2007749](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007749.zip) Conditional PSCell addition/change Qualcomm Incorporated discussion Rel-17

[R2-2007089](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007089.zip) Discussion on conditional PSCell change and addition Apple discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2007553](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007553.zip) Inter node CPAC procedure and configuration discussion Futurewei discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2007839](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007839.zip) Conditional PSCell addition and change in MR-DC Potevio discussion LTE\_NR\_DC\_enh2-Core

[R2-2007985](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007985.zip) Considerations of CPAC in Rel-17 LG Electronics discussion Rel-17

[R2-2006757](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006757.zip) Coexistence of CHO and CPC at the UE InterDigital discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2007052](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007052.zip) Discussion on conditional PSCell addition or change Spreadtrum Communications discussion

# WEB CONFERENCE WEDNESDAY AUGUST 26TH

# 6 Rel-16 NR Work Items

Essential corrections. While high maintenance intensity is expected, Rel-16 corrections are treated separately per WI.

## 6.7 NR mobility enhancements

(NR\_Mob\_enh-Core; leading WG: RAN2; REL-16; started: Jun 18; Completed June 20; WID: RP-192277; SR RP-201273). Documents in this agenda item will be handled in a break out session).

Documents under 6.7 will be treated together with documents in 7.4.

Email max expectation: 8 email threads (with 7.4)

### 6.7.1 General and Stage 2 Corrections

Including incoming LSs (if any).

By Web Conf (Tuesday August 25th)

[R2-2008132](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008132.zip) Summary of discussion [202] on LTE and NR mobility Stage-2 corrections (Nokia) Nokia (rapporteur) discussion NR\_Mob\_enh-Core, LTE\_feMob-Core Late

* Noted, agreements listed below

*Proposal 1:* [*R2-2007016*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007016.zip) *and* [*R2-2007595*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007595.zip) *are agreed. In* [*R2-2007595*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007595.zip) *a TS number is to be corrected in the cover page.*

*Proposal 2: Discuss further if CPC and non-CPC SN modification description and figures shall be separated, as proposed in* [*R2-2007360*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007360.zip)*.*

*Proposal 3: A clarification on MR-DC and DAPS coexistence is added to TS 37.340. The exact text is agreed after discussing* [*R2-2007309*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007309.zip)*.*

*Proposal 4: Change proposed in* [*R2-2007542*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007542.zip) *is agreed and added to the joint editorial/rapporteur’s CR for TS 37.340.*

*Proposal 5: Decide whether changes in* [*R2-2007698*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007698.zip)*,* [*R2-2007699*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007699.zip) *or* [*R2-2007358*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007358.zip) *are agreed, after concluding the changes proposed in* [*R2-2007309*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007309.zip)*.*

*Proposal 6: The CR in* [*R2-2007359*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007359.zip) *is agreed.*

*Proposal 7:* [*R2-2007496*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007496.zip) *and* [*R2-2007497*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007497.zip) *are agreed.*

*Proposal 8: Changes 1,2 and 3 from* [*R2-2007763*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007763.zip) *are agreed.*

*Proposal 9: RAN2 is asked to discuss and possibly check with RAN WG3 if CHO in LTE-5GC can be supported.*

**Bulk agreement:**

**1:** [**R2-2007016**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007016.zip) **and** [**R2-2007595**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007595.zip) **are agreed. In** [**R2-2007595**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007595.zip) **a TS number is to be corrected in the cover page.**

**6: The CR in** [**R2-2007359**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007359.zip) **is agreed.**

**7:** [**R2-2007496**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007496.zip) **and** [**R2-2007497**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007497.zip) **are agreed.**

**8: Provide revision of** [**R2-2007763**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007763.zip) **in** [**R2-2008520**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008520.zip)**, with changes 1,2 and 3 (to be approved unseen)**

**=> For the next meeting, editorials should be taken up with the specification editor before submitting.**

Discussion

- QC would like to use 7595 figure 10.3.2-4 instead of 7016 figure 10.3.1-4.

- Ericsson wonders if we will have editor CR? Chair clarifies that generally we merge editorials into one CR. ZTE thinks we should do this in the future.

**Discuss online:**

Take into account in rapporteur CR (or CR implementation phase?)

*Proposal 4: Change proposed in* [*R2-2007542*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007542.zip) *is agreed and added to the joint editorial/rapporteur’s CR for TS 37.340.*

* [**R2-2007542**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007542.zip) **is not pursued but done as part of CR implementation procdess (font change)**

Discuss if CHO in LTE-5GC is supported and if LS to RAN3 is needed

*Proposal 9: RAN2 is asked to discuss and possibly check with RAN WG3 if CHO in LTE-5GC can be supported.*

Discussion

- Nokia thinks we assumed this is implicitly supported during Rel-16 but the CR attempts to block it. So far no problems have been assumed. Intel thinks it’s not clear if there are problems but we could check with RAN3.

**=> Companies can contribute in RAN3 on this**

Discuss jointly

*Proposal 2: Discuss further if CPC and non-CPC SN modification description and figures shall be separated, as proposed in* [*R2-2007360*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007360.zip)*.*

*Proposal 3: A clarification on MR-DC and DAPS coexistence is added to TS 37.340. The exact text is agreed after discussing* [*R2-2007309*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007309.zip)*.*

*Proposal 5: Decide whether changes in* [*R2-2007698*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007698.zip)*,* [*R2-2007699*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007699.zip) *or* [*R2-2007358*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007358.zip) *are agreed, after concluding the changes proposed in* [*R2-2007309*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007309.zip)*.*

Discussion

- Chair wonders how urgent these are. Ericsson thinks we need to update these to Rel-17. Nokia agrees with Ericsson.

**=> On** [**R2-2007360**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007360.zip)***, s*ome change to CPC figures is needed but can be postponed (companies can think how to handle as something is needed for Rel-17)**

**=> Other changes (P3, P5) are also postponed.**

### 6.7.2 Conditional handover related corrections

This AI jointly addresses corrections to NR and LTE CHO.

By Web Conf (Tuesday August 25th)

[R2-200813](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_110-e/Docs/R2-2005741.zip)3 Summary of discussion [203] on CHO and CPC corrections (Intel) Intel (rapporteur) discussion NR\_Mob\_enh-Core, LTE\_feMob-Core Late

Agreed CRs

2.1-3: [R2-2007764](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007764.zip) is agreed;

2.1-4: [R2-2007663](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007663.zip) is agreed;

2.1-5: [R2-2007764](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007764.zip) is agreed;

2.1-6: [R2-2007705](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007705.zip) is agreed;

2.1-9: [R2-2007594](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007594.zip) is agreed;

2.1-10: [R2-2007018](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007018.zip) is agreed;

2.1-11: [R2-2007361](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007361.zip) is agreed;

2.2-1: [R2-2007592](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007592.zip) is agreed;

2.1-8: [R2-2007859](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007859.zip) is agreed.

2.1-1: [R2-2006869](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006869.zip) with the additional changes suggested by Rapporteur is agreed (unseen) in [R2-2008168](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008168.zip)

2.1-2: [R2-2007765](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007765.zip) with the additional changes suggested by Rapporteur is agreed (unseen) in [R2-2008519](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008519.zip)

2.1-7: [R2-2007706](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007706.zip) with the additional changes suggested by Rapporteur is agreed (unseen) in [R2-2008170](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008170.zip)

Not pursued CRs

2.1-13: [R2-2007593](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007593.zip) is not pursued;

2.2-2: [R2-2007766](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007766.zip) is not pursued;

2.2-3: [R2-2007767](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007767.zip) is not pursued;

Discussion

- LGE thinks P2.1-1 is not needed. Intel thinks this is aligning with NR so it’s OK in this case.

- Intrel thinks we can just agree to P2.1-8 as it is without merging.

### 6.7.4 UE capabilities

By Web Conf (Wednesday August 26th)

[R2-2008144](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008144.zip) Report of [AT111-e][214][MOB] DAPS UE capability structure for LTE/NR mobility (Huawei) Huawei, HiSilicon discussion NR\_Mob\_enh-Core, LTE\_feMob-Core Late

Online discussion (LTE+NR)

*Proposal 1: capture the following understanding in NR/LTE spec:*

*1) for intra-freq DAPS, in a band with two or more than two CCs, the CCs in the band with UL can all be source or target cell.*

*2) for inter-freq DAPS, the CCs in the BC with UL can all be source or target cell.*

*3) When intra-freq/inter-freq DAPS UE capability is indicated in a band combination comprising of a single band entry, the number of CCs in this band shall be at least two.*

Online discussion (NR only):

*Proposal 2: define a new featureSetCombinationDAPS to indicate DAPS UE capability.*

*Proposal 3: if this field is absent, current featureSetCombination can still be used for DAPS.*

*Proposal 4: ca-BandwidthClassDL-NR and ca-BandwidthClassUL-NR are not applied to DAPS handover if featuresetcombinationDAPS is included in a band combination.*

*Proposal 5: For DAPS handover, supportedBandwidthDL and supportedBandwidthUL only indicate the supported DL and UL bandwidth of source cell or target cell if featuresetcombinationDAPS is included in a band combination, i.e. a fallback per CC bandwidth is not validated.*

*Proposal 6: UE reports support for intra-frequency DAPS “per FS”.*

Discussion

- Huawei clarifies that LTE changes can be postponed until NR design is more stable.

- Huawei clarifies that for P1, 4 and 5, online is needed.

- Intel wonders if UE can indicate DAPS support for BC with >2 CCs? How do we handle SCells? Huawei thinks we have no SCells during DAPS HO. If there are >2CCs, for every pair UE can indicate DAPS parameters. QC wonders how can we guarantee different capabilities for source and target? Nokia thinks the “pairing” for >2 CCs is not so clear and could create more testing and it may not be possible.

- Huawei indicates that for P2/3, if UE has the same CA capability for DAPS, same FS works. But different capabilities are not possible to indicate.

- Intel thinks new FS allows UE to support different capabilities for DAPS HO. This allows also different BW class and other relaxations, or UE that supports DAPS but not CA. This would abandon BW class aspect for DAPS, making SCell support more difficult. Could only support 2 CCs. QC thinks this will just increase overhead. Also, for intra-frequency, all capabilities are in the new FS so how can the support be indicated as per P2?

- Ericsson thinks we could agree to have FS for intra-frequency DAPS and FSC for DAPS. Huawei would be fine with this.

- UE capability rapporteur indicates that the mega-CR would be provided on Monday.

- Intel wonders what we do for LTE? Huawei clarifies FS is only for MR-DC in LTE.

- Ericsson thinks we can’t dummify later on as that will increase overhead. Having per-band per-BC bit set to zero will be bad for size. Would like to do the same for LTE and have capabilities per-BC. QC wonders what this would mean for intra-frequency: Is it for all bands or will there be single-band BC? Ericsson thinks this will still be better than current.

- Ericsson

**Agreements**

**2: define a new featureSetCombinationDAPS to indicate DAPS UE capability.**

**6: UE reports support for intra-frequency DAPS “per FS”.**

* Continue discussion [214] on CRs until Friday morning. If CRs are not ready by then, we will retain existing DAPS capabilities. this is not intended to change functionality but reduce overhead.
* FFS what we do for LTE (no consensus to do anything in this meeting)

### 6.7.5 Other

Including DAPS aspects that are NR-specific without equivalent LTE impacts.

By Web Conf (Tuesday August 25th)

[R2-200813](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_110-e/Docs/R2-2005741.zip)5 Summary of discussion [205] on DAPS RLF and NR-specific corrections to Rel-16 mobility (Ericsson) Ericsson (rapporteur) discussion NR\_Mob\_enh-Core, LTE\_feMob-Core Late

**Proposals for email agreement (after Wed Aug 26th session)**

Easy agreements

* [205] CRs [R2-2007571](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007571.zip), [R2-2007495](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007495.zip), [R2-2008018](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008018.zip) and [R2-2008409](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008409.zip) are agreed
* [205] CRs [R2-2007482](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007482.zip) is not pursued. Its content can be covered by discussion of [R2-2006682](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006682.zip) and [R2-2007503](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007503.zip).
* [205] CRs [R2-2007310](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007310.zip) and [R2-2008072](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008072.zip) are postponed.

Proposed agreements for “difficult” cases:

* [205] the first change in [R2-2007665](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007665.zip) is postponed – can be taken into account in rapporteur CR in the next meeting.
* [205] Agree to revision of [R2-2006682](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006682.zip) in [R2-2008455](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008455.zip) taking into account the comments for [R2-2007482](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007482.zip).
* [205] Agree to revision of [R2-2007503](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007503.zip) in [R2-2008456](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008456.zip) taking into account the comments for [R2-2007482](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007482.zip).
* [205] [R2-2007017](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007017.zip) is postponed

# 7 Rel-16 EUTRA Work Items

Essential corrections

## 7.4 Even further mobility enhancement in E-UTRAN

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

Documents under 7.4 will be treated together with documents in 6.7

### 7.4.2 DAPS handover Corrections

This AI jointly addresses corrections to NR and LTE DAPS.

Including corrections to control and user plane for DAPS HO.

By Web Conf (Tuesday August 25th)

[R2-200813](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_110-e/Docs/R2-2005741.zip)4 Summary of discussion [204] on DAPS Corrections (Huawei) Huawei (rapporteur) discussion NR\_Mob\_enh-Core, LTE\_feMob-Core Late

*Proposal 1: do not change the terminology of “DAPS bearer” to “DAPS DRB”.*

*Proposal 2: In order to clarify UE needs to check if DAPS handover is configured at the start of handover,* [*R2-2007271*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007271.zip) *and* [*R2-2007273*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007273.zip) *can be agreed (Alt.2).*

*Proposal 3：As there is no consensus to align terminologies for handling of L2 entities in DAPS,* [*R2-2007666*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007666.zip) *is not agreed.*

*Proposal 4: for TS38.331,* [*R2-2007456*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007456.zip) *can be agreed with removing the third change (clarification on UE is not in MR-DC).*

*Proposal 5: for TS36.331,* [*R2-2007788*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007788.zip) *can be agreed to clarify source PDCP SDU discarding.*

*Proposal 6:* [*R2-2007481*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007481.zip) *can be agreed to correct the restriction for RLC UM radio bearers.*

*Proposal 7: as using “RLC entities” refers to more than one RLC entity in case of RLC UM, the changes in* [*R2-2007268*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007268.zip) *and* [*R2-2007269*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007269.zip) *are not agreed.*

*Proposal 8: As there is no consensus on clarification of the T304 informative table for DAPS,* [*R2-2007274*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007274.zip) *is not agreed.*

*Proposal 9: As there is no consensus on correction on RRC connection re-establishment in DAPS,* [*R2-2007311*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007311.zip) *and* [*R2-2008073*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008073.zip) *are not agreed.*

*Proposal 10:* [*R2-2007893*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007893.zip) *can be agreed with the wording revision “~~This~~ These formats ~~is~~ are applicable for DRBs mapped on RLC AM.”.*

*Proposal 11:* [*R2-2007710*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007710.zip) *and* [*R2-2007711*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007711.zip) *can be agreed to clarify No support of DAPS HO for a CHO candidate cell.*

**Proposals for email agreement (after Wed Aug 26th session)**

Agreed CRs:

**2: In order to clarify UE needs to check if DAPS handover is configured at the start of handover,** [**R2-2007271**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007271.zip) **and** [**R2-2007273**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007273.zip) **can be agreed (Alt.2).**

**11:** [**R2-2007710**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007710.zip) **and** [**R2-2007711**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007711.zip) **can be agreed to clarify No support of DAPS HO for a CHO candidate cell.**

**5: for TS36.331,** [**R2-2007788**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007788.zip) **can be agreed to clarify source PDCP SDU discarding.**

**6:** [**R2-2007481**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007481.zip) **can be agreed to correct the restriction for RLC UM radio bearers.**

CRs agreed with changes:

**4: for TS38.331,** [**R2-2007456**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007456.zip) **can be agreed with removing the third change (clarification on UE is not in MR-DC) in** [**R2-2008169**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008169.zip) **(unseen)**

**10:** [**R2-2007893**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007893.zip) **can be agreed with the wording revision “***~~This~~ These formats ~~is~~ are applicable for DRBs mapped on RLC AM.***” in** [**R2-2008174**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008174.zip) **(unseen).**

Not pursued CRs:

**1:** [**R2-2007625**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007625.zip) **is not pursued (no agreement to change the terminology of “DAPS bearer” to “DAPS DRB”).**

**3:** [**R2-2007666**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007666.zip) **is not pursued (no consensus to align terminologies for handling of L2 entities in DAPS)**

**7:** [**R2-2007268**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007268.zip) **and** [**R2-2007269**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007269.zip) **are not pursued (using “RLC entities” refers to more than one RLC entity in case of RLC UM).**

**8:** [**R2-2007274**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007274.zip) **is not pursued (no consensus on clarification of the T304 informative table for DAPS).**

**9:** [**R2-2007311**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007311.zip) **and** [**R2-2008073**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008073.zip) **are not pursued (no consensus on correction on RRC connection re-establishment in DAPS).**

### 7.4.3 UE capability corrections

By Web Conf (Tuesday August 25th)

[R2-2008136](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008136.zip) Summary of discussion [206] on UE capability corrections for mobility (China Telecom) China Telecom (rapporteur) discussion NR\_Mob\_enh-Core, LTE\_feMob-Core Late

**Proposals for email agreement (after Wed Aug 26th session)**

**Easy agreements:**

**1-1: for condHandover-r16, condPSCellChange-r16, condHandoverFailure-r16, condHandoverTwoTriggerEvents-r16, condPSCellChangeTwoTriggerEvents-r16, keep FRX-Diff and XDD-Diff and change their type to per band.**

**1-2: for pcellT312-r16, pscellT312-r16, remove FRX-Diff and XDD-Diff and keep their type as per UE.**

**1-3: for the per band CHO UE capabilities requiring xDD-Diff and FRx-Diff, UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands respectively.**

**Proposal 1-4: The table in the Annex of** [**R2-2006936**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006936.zip) **can be applied to CPC cases.**

**2-1: for** [**R2-2007591**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007591.zip)**, no need to discuss the proposal that supporting monitoring of the two triggering quantities RSRP and RSRQ in one event as part of the overall CHO UE capability.**

**4-2: for changes in** [**R2-2006932**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006932.zip) **and** [**R2-2006933**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006933.zip)**, with the following common view, clarify multipleTimingAdvance is mandatory for interFreqDAPS capble UE, while intraFreqTwoTAGs-DAPS is mandatory for intraFreqDAPS capble UE:**

* **UE should support multiple TAG for both intra- and inter-freq DAPS.**
* **when UE only supports intraFreqDAPS, it does not need to support multipleTimingAdvance.**

**4-3: agree the corrections in** [**R2-2007458**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007458.zip) **and** [**R2-2007459**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007459.zip)

* **for intraFreqDAPS-r16, add the following sentences to reflect RAN2 agreements: A UE indicating this capability shall also support synchronous DAPS handover, and single UL transmission for intra-frequency DAPS handover.**
* **for interFreqDAPS-r16, remove “syncnronous” and add the following sentences to reflect RAN2 agreements: A UE indicating this capability shall also support synchronous DAPS handover, and single UL transmission for inter-frequency DAPS handover.**
* Merge the above agreements 1-x above to 38.331 CR in [R2-2008175](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008175.zip) and 38.306 CR in [R2-2008176](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008176.zip). CRs provided for endorsement via email discussion [206], with deadline Friday Aug 28th, 07:00 UTC.
* As per 2-1, the CR [R2-2007591](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007591.zip) is not pursued
* Decide once 4-1 is agreed or rejected whether [R2-2006932](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006932.zip) /[R2-2006933](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006933.zip) need revision to incorporate these changes
* With the above changes for 4-3, [R2-2007458](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007458.zip) and [R2-2007459](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007459.zip) are agreed (unseen).

**“Difficult” agreements:**

*Proposal 1-5: discuss how to indicate CHO capability between different modes for the per band CHO UE capabilities requiring xDD-Diff and FRx-Diff.*

* Postponed (no changes needed for ASN.1 structure regardless of which option is chosen). Can be discussed based on contributions in the next meeting.

*Proposal 4-1: for changes in* [*R2-2006932*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006932.zip) *and* [*R2-2006933*](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006933.zip)*, discuss whether there are technical reasons why the ul-TransCancellationDAPS-r16 should be per BC or per UE to help decide which alternative to take:*

1. *ul-TransCancellationDAPS-r16 is per UE (under PhyLayerParameters).*
2. *ul-TransCancellationDAPS-r16 is per BC (under daps-Parameters-r16).*

* Stick to current structure (i.e. ul-TransCancellationDAPS-r16 is per UE (under PhyLayerParameters) since the functionality is the same for each BC as per RAN1 specifications.

# WEB CONFERENCE WEDNESDAY AUGUST 26

## 6.8 DC and CA enhancements

(LTE\_NR\_DC\_CA\_enh-Core; leading WG: RAN2; REL-16; started: Jun 18; Target Aug 20; WI RP-200791, SR: RP-201218) R1 and R2 parts are 100% complete.

Email max expectation: 4-5 email threads

### 6.8.1 General and Stage 2 Corrections

Including incoming LSs rapporteur inputs, including corrections discussions going beyond a specific TS, cross group discussions.

### 6.8.2 MAC Corrections

By Web Conf (Wednesday August 19th)

*PHR triggering:*

[R2-2006559](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006559.zip) Discussion on how to avoid frequent and redundant PHR triggered by dormant BWP switch Qualcomm Incorporated discussion Rel-16 LTE\_NR\_DC\_CA\_enh-Core

*Observation 1: New PHR trigger caused by dormancy switch was agreed with the justification that dormancy switch is almost equivalent to activating a new SCell, which triggers PHR reporting for the Network to know its Pcmax as specified in TS 38.321.*

*Observation 2: Different from SCell activation, dormancy switching is triggered by DCI instead of MAC-CE. Some companies showed concern that this new trigger condition may cause redundant and frequent PHR reporting if the network switches dormancy frequently. The FFS was added to address this concern.*

*Observation 3: It is possible that the network may switch dormancy frequently in some scenarios, e.g. when the bursty traffic changes frequently or DRX cycle is short.*

*Observation 4: PHR prohibit timer was introduced in MAC spec to prevent frequent reporting for PHR triggered by pathloss change and PHR triggered by power backoff*

*Proposal 1: Reuse existing PHR prohibit timer to prevent frequent and redundant PHR triggered by dormant BWP switching, i.e. the new PHR trigger caused by dormancy switch is modified to: upon change of activated BWP from dormant BWP to non-dormant DL BWP of an SCell of any MAC entity with configured uplink and phr-ProhibitTimer expires or has expired.*

[R2-2006812](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006812.zip) Discussion on frequent PHR trigger due to dormancy transition. OPPO discussion Rel-16 LTE\_NR\_DC\_CA\_enh-Core

*Proposal: no need to address redundant and frequent PHR reporting issue due to BWP switching from dormancy to non-dormancy.*

[R2-2007216](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007216.zip) Redundant and frequent PHR reporting in NR vivo discussion Rel-16 38.321 LTE\_NR\_DC\_CA\_enh-Core

*Observation1: in NR, when at least one PHR has been triggered and not cancelled, and if multiplePHR with value true is configured, the PH value of each activated serving cells which the active DL BWP is not the dormant BWP will be included in the PHR report, which is aligned with LTE.*

*Observation2: in NR, upon activation an SCell which firstActiveDownlinkBWP-Id is not set to dormant BWP, or upon change of activated BWP from dormant BWP to non-dormant DL BWP of an SCell, the PHR will be triggered. In LTE, upon activation of an SCell, the PHR will be triggered.*

*Observation 3: different with LTE, when network intends to set most of SCells to be activated with non-dormant BWP in a short period of time, PHR may be more triggered frequently since both the DCI based dormant/non-dormant BWP transition and MAC CE based state transition are involved in NR.*

*Observation 4: PHR may be more frequently triggered in NR than in LTE, since DCI based dormant/non-dormant BWP transition may be more frequent than MAC CE based state transition.*

*Proposal 1: phr-ProhibitTimer should be applied to avoid the redundant and frequent PHR reporting in NR.*

*Proposal 2: PHR can be triggered if phr-ProhibitTimer expires and if change of activated BWP from dormant BWP to non-dormant DL BWP of an SCell of any MAC entity with configured uplink occurs.*

*Proposal 3: to agree the attached TP.*

**Discussion (all 3 above discussed together)**

- LG thinks OPPO approach could be fine. Dormancy is controlled by NW so can prevent any frequent triggering.

- CATT supports using prohibit timer. vivo agrees.

- Samsung thinks we may not need to do anything as nothing is broken. Nokia agrees and thinks preventing PHR trigger is not correct. Huawei also things nothing is broken. Ericsson thinks this is optimization so it’s not needed.

- QC thinks that DCI-based dormancy activation is different than MAC-based SCell activation. Since DCI has not ACK, network doesn’t know always what UE does.

- FW thinks dormancy might increase signalling.

- Apple thinks UE should create PHR only if SCell with UL has transitioned from dormancy to non-dormancy.

* Noted (nothing is broken, views are split on whether anything is needed)

[R2-2006560](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006560.zip) CR to 38.321 on introducing PHR prohibit timer for PHR triggered by dormant BWP switch Qualcomm Incorporated CR Rel-16 38.321 16.1.0 0759 - F LTE\_NR\_DC\_CA\_enh-Core

* Not pursued

*SCell activation timing:*

[R2-2007905](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007905.zip) Discussion on the timing of scellDecativatedTimer for direct scell activation vivo discussion Rel-16 LTE\_NR\_DC\_CA\_enh-Core

*Observation 1: For direct SCell activation, the MAC entity may (re)start the sCellDeactivationTimer at the time which is later than the that specified in TS 38.213 and is not known by NW due to the RRC processing time.*

*Proposal 1: Send RAN1 an LS to ask for specifying the timing of starting the sCellDeactivationTimer for direct SCell activation.*

**Discussion**

- Huawei thinks the current requirement applies for SCell state configuration. QC thinks no LS to RAN1 is needed. RAN4 has specified the timeline requirements. Could add reference to 38.133. CATT also doesn’t see a need. Samsung thinks we don’t need even a reference: 38.213 refers to requirements so we don’t need the reference.

- Nokia thinks RAN1 only refers to deactivation timer. Ericsson agrees.

* Noted (no LS - companies can bring the topic up in RAN1)

[R2-2007906](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007906.zip) (Draft) LS on the timing of scellDecativatedTimer for direct scell activation vivo LS out Rel-16 LTE\_NR\_DC\_CA\_enh-Core To:RAN WG1 Cc:RAN WG4

* Noted
* [AT111-e][208][DCCA] Corrections SCell dormancy (Nokia)

Scope:

* + - Collect companies’ feedback for the contributions under 6.8.1, 6.8.2 and 6.8.3.1 marked for this email discussion
    - Proponents may provide updated versions (if needed) under this email discussion (Tdoc numbers can be requested for this purpose from the session chair or the RAN2 secretary)

Intended outcome:

* + - Discussion summary in [R2-2008138](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008138.zip) (by email rapporteur).
    - Session chair proposes agreements after the summary report is available

Deadline for providing comments, for rapporteur inputs, conclusions and CR finalization:

* + - Deadline for companies' feedback: Friday 2020-08-21 10:00 UTC
    - Deadline for rapporteur's summary (in [R2-2008138](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008138.zip)): Monday 2020-08-24 12:00 UTC
    - Deadline for CR finalization (for agreed CRs): Thursday 2020-08-27 07:00 UTC

By Web Conf (Wednesday August 26th)

[R2-2008151](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008151.zip) [AT111-e][208][DCCA] Corrections SCell dormancy (Nokia) Nokia

* Noted, agreements captured below.

By Email [208]

*SCell reactivation:*

[R2-2006679](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006679.zip) Discussion on Scell reactivation in a dormant and non-dormant BWP SHARP Corporation discussion Rel-16 LTE\_NR\_DC\_CA\_enh-Core

* [208] Reactivation of SCell is supported for any BWP. In case of reactivation of dormant BWP regular dormant operation continues (e.g. no UL activity, CSI reporting) and PHR is not sent.
* CR based on above is discussed until Friday morning 07:00 UTC via [208]. Final CR can be provided in [R2-2008180](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008180.zip).

*PHR triggering:*

[R2-2006810](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006810.zip) Clarifications on PHR triggers-R15 OPPO CR Rel-15 38.321 15.9.0 0786 - F NR\_newRAT-Core

[R2-2006811](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006811.zip) Clarifications on PHR triggers-R16 OPPO CR Rel-16 38.321 16.1.0 0787 - F LTE\_NR\_DC\_CA\_enh-Core

* [208] Confirm that PHR triggering should occur at reactivation of SCell with non-dormant BWP as active BWP as in release 15 (no TS change required)
* [208] Both not Pursued

[R2-2007947](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007947.zip) Correction on PHR triggering upon BWP switching from dormant BWP to non-dormant BWP Huawei, HiSilicon CR Rel-16 38.321 16.1.0 0871 - F LTE\_NR\_DC\_CA\_enh-Core

* [208] Not Pursued

[R2-2008014](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008014.zip) CR on the terminology of PHR trigger Samsung CR Rel-16 38.321 16.1.0 0874 - F LTE\_NR\_DC\_CA\_enh-Core

* [208] Merged with MAC Misc corrections CR [R2-200xxxx](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-200xxxx.zip)

*Dormant UE behaviour:*

[R2-2007217](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007217.zip) correction on the UE behaviour on dormant state vivo CR Rel-15 36.321 15.9.0 1491 - F LTE\_NR\_DC\_CA\_enh-Core, LTE\_euCA-Core

[R2-2007218](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007218.zip) correction on the UE behaviour on dormant state vivo CR Rel-16 36.321 16.1.0 1492 - A LTE\_NR\_DC\_CA\_enh-Core, LTE\_euCA-Core

* [208] Both not pursued

[R2-2007219](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007219.zip) correction on the UE behaviour on dormant BWP vivo CR Rel-16 38.321 16.1.0 0810 - F LTE\_NR\_DC\_CA\_enh-Core

* [208] Based on agreements in RAN2 we do not support RACH/CSI reporting on dormant SCell
* [208] revised, see TP in email discussion report.

[R2-200xxxx](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-200xxxx.zip) correction on the UE behaviour on dormant BWP vivo CR Rel-16 38.321 16.1.0 0810 1 F LTE\_NR\_DC\_CA\_enh-Core

By Email [208]

Stage-2: Moved here for treatment with others in 208

[R2-2007691](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007691.zip) Correction on UL behaviours in the dormant BWP Huawei, HiSilicon CR Rel-16 38.300 16.2.0 0286 - F LTE\_NR\_DC\_CA\_enh-Core

- [208] Rap: Agreeable, can consider text enh by LG.

* Revised in [R2-2008530](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008530.zip)

[R2-2008530](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008530.zip) Correction on UL behaviours in the dormant BWP Huawei, HiSilicon CR Rel-16 38.300 16.2.0 0286 1 F LTE\_NR\_DC\_CA\_enh-Core

* Agreed

By Web Conf (Wednesday August 19th)

[R2-2007584](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007584.zip) Misc corrections for Rel-16 DCCA Ericsson Inc. CR Rel-16 36.331 16.1.1 4391 - F LTE\_NR\_DC\_CA\_enh-Core

* Endorsed (can discuss editorials over email discussion)

[R2-2007585](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007585.zip) Misc corrections for Rel-16 DCCA Ericsson Inc. CR Rel-16 38.331 16.1.0 1865 - F LTE\_NR\_DC\_CA\_enh-Core

* Endorsed (can discuss editorials over email discussion)

[R2-2007582](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007582.zip) Misc corrections for Rel-16 DCCA Ericsson Inc. CR Rel-16 36.300 16.2.0 1306 - F LTE\_NR\_DC\_CA\_enh-Core

* Endorsed (can discuss editorials over email discussion)

[R2-2007583](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007583.zip) Misc corrections for Rel-16 DCCA Ericsson Inc. CR Rel-16 38.300 16.2.0 0284 - F LTE\_NR\_DC\_CA\_enh-Core

* Endorsed (can discuss editorials over email discussion)

- Huawei would have some editorial comments to the CRs

* [AT111-e][215][DCCA] CR finalization (Ericsson)

Scope:

* + - Merge marked CRs to rapporteur versions of 36.331, 38.331, 36.300 and 38.300 (from all DCCA email discussions where editorial changes are agreed). Companies can also provide other editorial comments to [R2-2007582](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007582.zip), [R2-2007583](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007583.zip), [R2-2007584](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007584.zip), and [R2-2007585](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007585.zip)

Intended outcome:

* + - Agreeable CRs

Deadline for providing comments, for rapporteur inputs, conclusions and CR finalization:

* + - Deadline for companies' feedback: Wednesday 2020-08-26 12:00 UTC
    - Deadline for CR finalization (for agreed CRs): Thursday 2020-08-27 07:00 UTC

### 6.8.3 RRC Corrections

#### 6.8.3.1 Fast Scell activation

By Email [208]

[R2-2007003](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007003.zip) Correction on the Dormant BWP CATT discussion Rel-16 LTE\_NR\_DC\_CA\_enh-Core

* [208] noted, not agreed

[R2-2007684](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007684.zip) Correction on dormant BWP Huawei, HiSilicon CR Rel-16 38.331 16.1.0 1881 - F LTE\_NR\_DC\_CA\_enh-Core

* [208] confirm that dormant BWP cannot be the only BWP for SCell (no TS change needed, already clear)
* [208] Not pursued

[R2-2007006](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007006.zip) Correction on the Configuration of sCellState for 38.331 CATT CR Rel-16 38.331 16.1.0 1768 - F LTE\_NR\_DC\_CA\_enh-Core

[R2-2007007](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007007.zip) Correction on the Configuration of sCellState for 36.331 CATT CR Rel-16 36.331 16.1.1 4366 - F LTE\_NR\_DC\_CA\_enh-Core

- [208] Rap: Agreeable with modifications indicated in Email report

* [208] revised in [R2-2008436](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008436.zip) and [R2-2008437](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008437.zip)

[R2-2008436](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008436.zip) Correction on the Configuration of sCellState for 38.331 CATT CR Rel-16 38.331 16.1.0 1768 1 F LTE\_NR\_DC\_CA\_enh-Core [R2-2007006](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007006.zip)

* Revised in [R2-2008540](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008540.zip)

[R2-2008540](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008540.zip) Correction on the Configuration of sCellState for 38.331 CATT CR Rel-16 38.331 16.1.0 1768 2 F LTE\_NR\_DC\_CA\_enh-Core [R2-2008436](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008436.zip)

* Agreed (unseen)

[R2-2008437](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008437.zip) Correction on the Configuration of sCellState for 36.331 CATT CR Rel-16 36.331 16.1.1 4366 1 F LTE\_NR\_DC\_CA\_enh-Core [R2-2007007](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007007.zip)

* Agreed

#### 6.8.3.2 Early measurement reporting

Including outcome of [Post110-e][080][DCCA] Early Measureemnts and Network Sharing (Huawei)

By Web Conf (Wednesday August 19th)

Outcome of [Post110-e][080][DCCA] Early Measureemnts and Network Sharing (Huawei):

[R2-2007688](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007688.zip) Summary of [Post110-e][080][DCCA] Early Measurements and Network Sharing Huawei discussion Rel-16 LTE\_NR\_DC\_CA\_enh-Core Late

*A network sharing scenario was shown together with the use of idle/inactive measurement when broadcast signalling is used to provide the NR frequency list to measure and all companies agree that the UE may measure NR frequencies that it is actually not allowed to use.*

*1) there is common understanding on the UE behaviour when broadcast signalling is used to provide the list of NR carriers for idle/inactive measurements.*

*2) Some companies think that the drawback of using broadcast signalling is that it may include frequencies that are not of interest to use for a specific UE for different reasons (no example was given) while other companies think that NR carriers are generally service-agnostic so that such drawback does not exist in most deployments.*

*3) All companies agree that to avoid useless idle/inactive measurements, the dedicated signalling list should only contain NR frequencies that the UE is allowed to use for EN-DC.*

*4) It was commented by one company that a given frequency allowed for EN-DC while in an LTE cell may not be allowed in a neighbour LTE cell, so any list provided by dedicated signalling may not respect that condition while in all LTE cells around.*

*5) In the scenario where the dedicated signalling information includes the ssb-measConfig, one company think that after cell reselection, the UE will continue to measure NR SSB detected prior to cell reselection even outside of the corresponding SMTC.*

*6) It was commented by two network vendors that using broadcast signalling avoids inter-cell coordination, which is necessary for dedicated signalling. There are diverging vies on the merits/drawbacks of using broadcast or dedicated signalling, as already indicated above.*

*7) Two network vendors think that when adding NR frequencies for EN-DC to non-shared LTE cells, inter-cell coordination across PLMNs is necessary if the NR frequency list for idle/inactive measurements is provided via dedicated signalling but is not needed not if provided via broadcast signalling.*

*One network vendor may disagree with this or the point of this network vendor might be about standalone NR (i.e. cell reselection information) rather than EN-DC.*

*8) There is no consensus to add anything in Rel-16 at this stage.*

*Proposal 1: review the above conclusions and confirm they accuraely capture all views.*

*Proposal 2: Check whether there is really different understandings on UE behaviour in 5)*

*Proposal 3: No further change in Rel-16 (unless a clarifications needed for point 5 above).*

Discussion

- Huawei thinks we should handle 5) to ensure UE behaviour is clear. Nokia agrees with the rapporteur proposal for 5). Huawei thinks that if dedicated doesn’t match broadcast signalling, UE is not required to measure. If no broadcast signalling is present, UE is not required to measure outside the SMTC. Samsung agrees and thinks we tried to introduce a note before that there are no requirements for the UE after reselection. QC agrees and thinks this was discussed before and shouldn’t re-open it. MTK agrees UE is not required to measure outside SMTC.

- Ericsson agrees there are no requirements but this can be left up to UE implementation.

- ZTE thinks the scenario is where btoadcast and edicated don’t match. Huawei thinks the scenario is where no broadcast signalling exists except for EMR flag. So UE could continue with dedicated one but is not required to. ZTE thinks UE is required to continue perform EMR based on dedicated signalling, but UE may fail to detect the SSB. UE is not required to autonomously detect SSB window. Samsung agrees.

* For item 5, no specification problem identified. UE continues using dedicated signalling and does not autonomously adjust STMC offset.
* No further change needed in Rel-16 to support EMR with network sharing.
* [AT111-e][209][DCCA] Corrections to early measurements reporting (Ericsson)

Scope:

* + - Collect companies’ feedback for the contributions under 6.8.3.2 marked for this email discussion
    - Proponents may provide updated versions (if needed) under this email discussion (Tdoc numbers can be requested for this purpose from the session chair or the RAN2 secretary)

Intended outcome:

* + - Discussion summary in [R2-2008139](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008139.zip) (by email rapporteur).
    - Session chair proposes agreements after the summary report is available

Deadline for providing comments, for rapporteur inputs, conclusions and CR finalization:

* + - Deadline for companies' feedback: Friday 2020-08-21 10:00 UTC
    - Deadline for rapporteur's summary (in [R2-2008139](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008139.zip)): Monday 2020-08-24 12:00 UTC
    - Deadline for CR finalization (for agreed CRs): Thursday 2020-08-27 07:00 UTC

By Web Conf (Wednesday August 26th)

[R2-2008139](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008139.zip) [AT111-e][209][DCCA] Corrections to early measurement reporting Ericsson

* [209] Noted, agreements captured below

By Email [209]

36.331-only corrections:

[R2-2007682](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007682.zip) Correction on updating the measurement configuration and performing measurement in early measurement Huawei, HiSilicon CR Rel-16 36.331 16.1.1 4397 - F LTE\_NR\_DC\_CA\_enh-Core

- [209] Rapporteur summary: Majority of the companies agree with the change, but since the change is already included in the rapporteur CR, there is no need to have this separate CR. 5 companies suggested to add a line calling 5.6.20.4 instead of the deleted section. 6 companies regarded this as not needed, since 5.6.20.4 will anyway be called upon cell (re)selection. Rapporteur therefore suggests to go with majority, and not add the calling of 5.6.20.4. The CR also proposed to add a line “1> perform measurements according to 5.6.20.2” in 5.6.20.1a, but there was no motivation for this change. Based on companies input rapporteur regard it as not needed, since 5.6.20.1a is about configuration, whereas 5.6.20.2 is about performing the measurements and we don’t have such lines in similar parts of the specification.

* [209] merged with Rapporteur CR (partly, see email disc).

[R2-2007622](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007622.zip) Correction information structure of early measurement results for additional EUTRA frequencies Samsung Telecommunications CR Rel-16 36.331 16.1.1 4394 - F LTE\_NR\_DC\_CA\_enh-Core

*(moved from 6.8.3)*

- [209] Rapporteur summary: 7 companies agree the intention of the CR, whereas 6 companies are uncertain. The uncertainty comes from the necessity of performing this change, which ultimately is a signalling optimisation. 5 companies supported to fix this in NBC way. 3 companies were reluctant to apply NBC change, as this is signalling optimisation.

- [209] Rapporteur thinks that since there is a window in this meeting to fix the signalling structure in an NBC manner, we should either fix it in NBC way, or we do nothing.

- [209] Rap Prop: decide either to 1) agree the CR, but change the implementation to NBC and correct identified typos, or 2. not agree the CR

* Not pursued

38.331-only corrections:

[R2-2007205](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007205.zip) Correction on idle/inactive measurement after cell (re)selection Google Inc. CR Rel-16 38.331 16.1.0 1797 - F LTE\_NR\_DC\_CA\_enh-Core

- [209] intermediate, Rapporteur summary: Companies agree 2nd and 3rd changes (which are also same as in [R2-2007220](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007220.zip) and [R2-2008009](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008009.zip)). For the 1st change there was more discussion. 8 companies supported the first change, modified according to [R2-2008009](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008009.zip) to cover the Intra-RAT cell (re)selection) case: “- upon intra-RAT reselecting a cell in RRC\_IDLE or RRC\_INACTIVE”. 6 companies share the view that the first change is not needed. One company mentioned that “If reselection does not result in update of SIB4/SIB11, there is no need to execute 5.7.8.1a, so maybe it is better to remove the trigger from 5.7.8.4 and not change 5.7.8.1”. Another company mentioned that “the sentence “1>upon update of system information (SIB4, or SIB11)” can cover the intra-RAT cell reselection case.”. There seems thus to be no clear consensus as to how to address the 1st change of the CR. However, based on the points raised in the discussion, rapporteur would like to make following proposal, which hopefully should be acceptable to everyone:

- [209] Rap P1: The 1st change in [R2-2007205](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007205.zip) is replaced with the following changes:   
1. Clarify in 5.7.8.1a that “upon update of system information (SIB4 or SIB11)” includes the case of intra-RAT cell (re)selection.  
2. Remove the line “2> perform the actions as specified in 5.7.8.1a;” from 5.7.8.4.  
These changes can be merged into 38.331 rapporteur CR.

- [209] Rap: Regarding 2nd and 3rd changes, they are mainly editorial, and rapporteur suggests merging the changes into the rapporteur CR.

* All changes agreed to be included in rapporteur CR (see discussion [215])

[R2-2008010](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008010.zip) Corrections on the UE behavior upon PLMN reselection while T331 is running Samsung Electronics Co., Ltd CR Rel-16 38.331 16.1.0 1972 - F LTE\_NR\_DC\_CA\_enh-Core

* [209] not pursued

[R2-2007685](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007685.zip) Correction on the descriptions of the two idlemodeMeasurementReq fields Huawei, HiSilicon CR Rel-16 38.331 16.1.0 1882 - F LTE\_NR\_DC\_CA\_enh-Core

- [209] Rapporteur summary: Majority of companies (10) agree to the clarifications, at least the first change. For the second change, 3 companies disagree. 2 companies point out that the change is not needed, as the availability aspect of early measurements is covered already in the procedural text. Rapporteur is not convinced the changes are needed, but is ready to follow majority decision. Since it is a small clarification, rapporteur suggests though to merge the changes into rapporteur CR, if RAN2 agrees the changes are needed.

- [209] Chairman: It seems there is consensus that the first change is correct, but objections that the second change is not fully correct. This is a small possibly not needed change, and we shouldn’t introduce errors. SO, please just do the first one.

* [209] 1st change is agreed, merged into Rapporteur CR.

[R2-2008008](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008008.zip) Corrections to the UE behavior upon reception of RRCSetup while T331 is running Samsung Electronics Co., Ltd CR Rel-16 38.331 16.1.0 1970 - F LTE\_NR\_DC\_CA\_enh-Core

* [209] Contents agreed, merged into 38.331 rapporteur CR

[R2-2007220](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007220.zip) Correction on early measurement configuration during inter-RAT cell reselection vivo CR Rel-16 38.331 16.1.0 1802 - F LTE\_NR\_DC\_CA\_enh-Core

[R2-2008009](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008009.zip) Corrections on the behaviours with cell (re-)selection while T331 is running Samsung Electronics Co., Ltd CR Rel-16 38.331 16.1.0 1971 - F LTE\_NR\_DC\_CA\_enh-Core

* [209] Both Same as 7005, not pursued

36.331+38.331 corrections:

[R2-2007004](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007004.zip) CR to 38.331 on involving all fields of early measurement report CATT CR Rel-16 38.331 16.1.0 1767 - F LTE\_NR\_DC\_CA\_enh-Core

- [209] Rapporteur summary: 6 companies agree with the CR. 8 companies have no strong view. 4 companies propose to add the changes to rapporteur CR, since there is no functional change involved. 5 companies think it is better to keep the changes in separate CR, since there are many changes. Since there is no clear majority for any direction, rapporteur suggest not to agree the CR. We generally do not cover the handling of all fields in procedural text, and what is added in this CR is not strictly needed.

- [209] Chairman: It seems the CR is correct, and there is no objection. However, the e-meeting procedure is not so good and sometimes it is difficult to interpret companies comments. It seems there is also no consensus whether the CR is needed, and technically I’d agree with the rapporteur, the RRC TS will grow considerably if we systematically add setting of every IE into the procedure text (as is sometimes done in other groups / for other TSes), so maybe that is not a good idea.

* [209] not pursued

[R2-2007005](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007005.zip) CR to 36.331 on involving all fields of early measurement report CATT CR Rel-16 36.331 16.1.1 4365 - F LTE\_NR\_DC\_CA\_enh-Core

- [209] Rapporteur summary: 6 companies agree with the CR. 8 companies have no strong view. Most companies have the same comments as for the previous CR [R2-2007004](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007004.zip), except that in this CR there are some errors that would need to be corrected. However, since like for the previous CR there was no clear majority for any direction, rapporteur suggest not to agree this CR either. We generally do not cover the handling of all fields in procedural text, and what is added in this CR is not strictly needed.

* [209] not pursued

#### 6.8.3.3 Other

Including NR-NR DC, MCG SCell and SCG configuration with RRC resume, Fast MCG link recovery, and RRC corrections that doesn’t fit under the other headings.

By Web Conf

Missing parts of Toffset:

[R2-2007277](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007277.zip) Remaining issues on Toffset for NR-DC power control Ericsson CR Rel-16 38.331 16.1.0 1822 - F LTE\_NR\_DC\_CA\_enh-Core

*In the last RAN2#110-e meeting, it was agreed to introduce an inter-node RRC signaling regarding the coordination of the T\_offset as mentioned in the LS in R1-2001421.*

*However, even if the coordination between the NG-RAN node has been agreed, what is missing is how the MCG decides what value for the T\_offset to use. This should, indeed, signaled by the UE thorugh a capability.*

*In NRDC-Paramenters IE:*

*- A new capability, named maxToffsetNRDC is added to allow the UE to signal the value supported for the Toffset that is used for dynamic power sharing in NR-DC.*

* Postponed until next week. We decide then what to do if RAN1 LS hasn’t yet arrived then.

[R2-2007278](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007278.zip) Remaining issues on Toffset for NR-DC power control Ericsson CR Rel-16 38.306 16.1.0 0376 - F LTE\_NR\_DC\_CA\_enh-Core

* Postponed until next week. We decide then what to do if RAN1 LS hasn’t yet arrived then.

[R2-2007578](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007578.zip) Missing fields for Toffset coordination in INM Ericsson CR Rel-16 38.331 16.1.0 1864 - F LTE\_NR\_DC\_CA\_enh-Core

Discussion 3 tdocs above

- Nokia is fine with the intention of all 3 CRs but wonders about the value range for INM. Thinks they are open in RAN1 still. QC thinks we should postpone the discussion until RAN1 sends us the values. We sent LS to RAN1 last time but they haven’t replied yet. Apple agrees. Huawei also agrees. Ericsson agrees the value range is still open in RAN1. We could agree to values later and add placeholders. Expects one “short” and one “long” offset.

- LG thinks it’s not clear which values relate to which UE capability in RAN1 and that’s still open. ZTE thinks RAN1 has agreed to RAN” signalling, only value range is open.

* Postponed until next week. We decide then what to do if RAN1 LS hasn’t yet arrived then.

2nd week discussion

- LGE wonders if we need 306 CRs. Ericsson clarifies UE has to indicate what it supports.

* 1-week email discussion based on RAN1 LS (under discussion currently). Intent is to have CRs agreed for RANP submission based on the LS content.
* [Post111-e][xx][R16 DCCA] Toffset finalization (Ericsson)

Discuss based on RAN1 LS which parts of [R2-2007277](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007277.zip), [R2-2007278](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007278.zip) and [R2-2007578](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007578.zip) are needed in RAN2 specifications and agree to corresponding CRs.

Intended outcome: Agreed CRs

Deadline: Short (1-week)

Two PUCCH group and HARQ-ACK spatial bundling:

[R2-2007680](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007680.zip) Correction on HARQ ACK spatial bundling configurations for secondary PUCCH group Huawei, HiSilicon discussion Rel-16 LTE\_NR\_DC\_CA\_enh-Core

Discussion

- OPPO thinks we need to be careful of NBC changes. Huawei clarifies current specification is not BC with Rel-15, which is why we have to fix this. Ericsson agrees this is an issue an option 1 seems better. Nokia agrees.

- Apple wonders if NW always sets Rel-16 if it desires Rel-16 behaviour – what happens if the field is absent? Huawei clarifies that this is the same as Rel-15 behaviour (i.e. depending on R15 field presence). Apple clarifies we need to make this clear in the CR.

- ZTE wonders if this is about Rel-15 gNB and Rel-16 UE interworking. Can UE determine that from other fields, e.g. if no Rel-16 fields are present, UE would know it’s Rel-15 gNB? Huawei clarifies we don’t have different UE behaviour or cases where UE has to detect the gNB version. Apple thinks UE cannot deduce network version from configured fields.

* Adopt option 1 to fix the issue.
* Offline discussion [216] (Huawei), CR can be provided in [R2-2008150](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008150.zip) (CR number can be requested from MCC)
* [AT111-e][216][DCCA] Correction on HARQ ACK spatial bundling configurations for secondary PUCCH group (Huawei)

Scope:

* + - Provide CR according to option 1 from [R2-2007680](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007680.zip), and company comments offline. Cover page should indicate this is NBC CR and include inter-operability analysis

Intended outcome:

* + - CR to 38.331 in [R2-2008150](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008150.zip) (by email rapporteur).

Deadline for providing comments, for rapporteur inputs, conclusions and CR finalization:

* + - Deadline for CR finalization: Tuesday 2020-08-25 10:00 UTC

Issues with SCell slot offset:

[R2-2008365](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008365.zip) Issue on SCell Slot Slit for Unaligned CA CMCC discussion Rel-16 TEI16

*(moved from 6.14.2)*

**Discussion**

- ZTE thinks the issue is valid already in Rel-15 since SCell follows PCell timing reference, which is the root cause for this. Wonders if all chipsets do it as CMCC proposes. MediaTek agrees and is fine with the CMCC proposal.

- QC thinks this is a RAN1 issue. Would like to postpone to next meeting.

- Ericsson wonders if the scenario can be handled with proper network configuration.

- Nokia thinks Rel-15 is not a problem as SMTC is multiple of 1ms and partial overlap is not possible. This is only possible due to unaligned CA.

- CMCC clarifies that in RAN1 all think this issue needs to be handled in RAN2.

* Noted

Post-meeting email discussion

* [Post111-e#xx][DCCA] SCell SMTC window for Unaligned CA (CMCC)

Discuss the problem and attempt to come up with a solution.

Intended outcome: Email discussion report + CR (if needed)

Deadline: Long

* [AT111-e][210][DCCA] Other DCCA Corrections (Ericsson)

Scope:

* + - Collect companies’ feedback for the contributions under 6.8.1 and 6.8.3.3 marked for this email discussion
    - Proponents may provide updated versions (if needed) under this email discussion (Tdoc numbers can be requested for this purpose from the session chair or the RAN2 secretary)

Intended outcome:

* + - Discussion summary in [R2-2008140](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008140.zip) (by email rapporteur).
    - Session chair proposes agreements after the summary report is available

Deadline for providing comments, for rapporteur inputs, conclusions and CR finalization:

* + - Deadline for companies' feedback: Friday 2020-08-21 10:00 UTC
    - Deadline for rapporteur's summary (in [R2-2008140](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008140.zip)): Monday 2020-08-24 12:00 UTC
    - Deadline for CR finalization (for agreed CRs): Thursday 2020-08-27 07:00 UTC

Postponed

Use of SK-counter in Rel-15:

[R2-2006813](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006813.zip) Correction on sk-Counter-R15 OPPO CR Rel-15 38.331 15.10.0 1738 - F NR\_newRAT-Core

* Postponed

By Web Conf (Wednesday August 26th)

[R2-2008140](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008140.zip) [AT111-e][210][DCCA] Other DCCA Corrections Ericsson

* [210] noted, agreements captured below

By Email [210]

Stage-2, moved here for treatment

[R2-2007690](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007690.zip) Correction on power coordination in NR-DC Huawei, HiSilicon CR Rel-16 37.340 16.2.0 0224 - F LTE\_NR\_DC\_CA\_enh-Core

* [210] merged into 37.340 rapporteur CR

[R2-2006897](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006897.zip) CR to 37.340 on SCG resume procedure ZTE Corporation, Sanechips CR Rel-16 37.340 16.2.0 0217 - F LTE\_NR\_DC\_CA\_enh-Core

* [210] merged, Updates according to comments received during email discussion are merged into 37.340 rapporteur CR.

By Email [210] (due to time running out during Aug 19 session)

[R2-2008366](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008366.zip) Corrections on Unaligned CA CMCC CR Rel-16 38.331 16.1.0 1990 - B TEI16

*(moved from 6.14.2)*

* [210] Merged, Changes in [R2-2008366](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008366.zip) are merged into 38.331 rapporteur CR.

By Email [210] (due to time running out during Aug 19 session)

Use of SK-counter in Rel-16:

[R2-2006814](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006814.zip) Correction on sk-Counter-R16 OPPO CR Rel-16 38.331 16.1.0 1739 - F LTE\_NR\_DC\_CA\_enh-Core

* [210], Merged, The second change in [R2-2006814](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006814.zip) is merged into 36.331 and 38.331 rapporteur CRs.

By Email [210]

CA aspects (related to RAN1-led features):

[R2-2007221](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007221.zip) Adding enableDefaultBeamForCSS for cross-carrier scheduling with different SCS vivo CR Rel-16 38.331 16.1.0 1803 - F LTE\_NR\_DC\_CA\_enh-Core

* [210] [R2-2007221](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007221.zip) can be agreed with changes.
* [210] revised in [R2-2008451](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008451.zip)

[R2-2008451](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008451.zip) Adding enableDefaultBeamForCSS for cross-carrier scheduling with different SCS vivo CR Rel-16 38.331 16.1.0 1803 1 F LTE\_NR\_DC\_CA\_enh-Core

[R2-2007008](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007008.zip) Correction on the Field Description for Field Using SetupRelease Structure CATT CR Rel-16 38.331 16.1.0 1769 - F LTE\_NR\_DC\_CA\_enh-Core

* [210] Merged, Changes in [R2-2007008](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007008.zip) are merged into 38.331 rapporteur CR.

[R2-2007882](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007882.zip) Clarification on CA slot offset configuration MediaTek Inc. CR Rel-16 38.331 16.1.0 1941 - F LTE\_NR\_DC\_CA\_enh-Core

* [210] Merged, Changes in [R2-2007882](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007882.zip) are merged into 38.331 rapporteur CR.

[R2-2006886](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006886.zip) Add tdm-PatternConfig-r16 in the inter-node message Google Inc. CR Rel-16 36.331 16.1.1 4361 - F LTE\_NR\_DC\_CA\_enh-Core

* [210] [R2-2006886](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006886.zip) can be agreed with changes
* [210] revised in [R2-2008179](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008179.zip)

[R2-2008179](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008179.zip) Add tdm-PatternConfig-r16 in the inter-node message Google Inc. CR Rel-16 36.331 16.1.1 4361 1 F LTE\_NR\_DC\_CA\_enh-Core

Fast MCG recovery:

[R2-2007683](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007683.zip) Correction on SCG RLF detection while MCG is suspended Huawei, HiSilicon CR Rel-16 38.331 16.1.0 1880 - F LTE\_NR\_DC\_CA\_enh-Core

* [210] Merged, Changes in [R2-2007683](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007683.zip) are merged into 38.331 rapporteur CR.

[R2-2007686](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007686.zip) Miscellaneous corrections for fast MCG link recovery Huawei, HiSilicon CR Rel-16 36.331 16.1.1 4398 - F LTE\_NR\_DC\_CA\_enh-Core

* [210] Merged, The second change is merged into 38.331 rapporteur CR.

[R2-2007687](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007687.zip) Miscellaneous corrections for fast MCG link recovery Huawei, HiSilicon CR Rel-16 38.331 16.1.0 1883 - F LTE\_NR\_DC\_CA\_enh-Core

* [210] Merged, The second change is merged into 38.331 rapporteur CR.

[R2-2007279](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007279.zip) Correction to field condition of refFR2ServCellAsyncCA Ericsson CR Rel-16 38.331 16.1.0 1823 - F LTE\_NR\_DC\_CA\_enh-Core

*(moved from 6.8.3)*

* [210] Agreed

[R2-2006780](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006780.zip) Corrections to failure type for MCGFailureInformation and SCGFailureInformation Samsung Electronics Co., Ltd CR Rel-16 38.331 16.1.0 1737 - F LTE\_NR\_DC\_CA\_enh-Core

*(moved from 6.8.3)*

* [210] [R2-2006780](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006780.zip) can be agreed with changes.
* [210] revised in [R2-2008177](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008177.zip)

[R2-2008177](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008177.zip) Corrections to failure type for MCGFailureInformation and SCGFailureInformation Samsung Electronics Co., Ltd CR Rel-16 38.331 16.1.0 1737 - F LTE\_NR\_DC\_CA\_enh-Core

*Other topics(e.g. SCG handling while in RRC\_INACTIVE or when SCG is suspended):*

[R2-2007681](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007681.zip) Correction on storing SCG configuration in UE INACTIVE AS context Huawei, HiSilicon CR Rel-16 38.331 16.1.0 1879 - F LTE\_NR\_DC\_CA\_enh-Core

* [210] [R2-2007681](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007681.zip) can be agreed with changes.
* [210] revised in [R2-2008507](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008507.zip)

[R2-2008507](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008507.zip) Correction on storing SCG configuration in UE INACTIVE AS context Huawei, HiSilicon CR Rel-16 38.331 16.1.0 1879 1 F LTE\_NR\_DC\_CA\_enh-Core

* Agreed (unseen)

[R2-2006815](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006815.zip) Clarifications on concept of suspend XCG transmission OPPO discussion Rel-16 LTE\_NR\_DC\_CA\_enh-Core

* [210] Noted, not agreed

### 6.8.4 Other

By Email [210] (due to time running out during Aug 19 session)

DCCA-specific UE capability aspects:

[R2-2006562](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006562.zip) CR to 36.306 on UE capability of direct SCell activation Qualcomm Incorporated CR Rel-16 36.306 16.1.0 1776 - F LTE\_NR\_DC\_CA\_enh-Core

*(moved from 6.8.3.1)*

[R2-2006563](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006563.zip) CR to 36.331 on UE capability of direct SCell activation Qualcomm Incorporated CR Rel-16 36.331 16.1.1 4348 - F LTE\_NR\_DC\_CA\_enh-Core

*(moved from 6.8.3.1)*

TBD whether directSCellActivation-r15 can be applied also for the SCG SCell case.

- QC thinks this was introduced for euCA and not NE-DC. Nokia wonders how we can separate if it doesn’t exist for LTE.

* FFS whether directSCellActivation-r15 can be applied also for the NE-DC SCG SCell case.
* Postponed

# WEB CONFERENCE FRIDAY AUGUST 28

### 6.7.4 UE capabilities

By Web Conf (Friday August 28th)

[R2-2008144](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008144.zip) Report of [AT111-e][214][MOB] DAPS UE capability structure for LTE/NR mobility (Huawei) Huawei, HiSilicon discussion NR\_Mob\_enh-Core, LTE\_feMob-Core Late

Online discussion (LTE+NR)

*Proposal 1: capture the following understanding in NR/LTE spec:*

*1) for intra-freq DAPS, in a band with two or more than two CCs, the CCs in the band with UL can all be source or target cell.*

*2) for inter-freq DAPS, the CCs in the BC with UL can all be source or target cell.*

*3) When intra-freq/inter-freq DAPS UE capability is indicated in a band combination comprising of a single band entry, the number of CCs in this band shall be at least two.*

Online discussion (NR only):

*Proposal 2: define a new featureSetCombinationDAPS to indicate DAPS UE capability.*

*Proposal 3: if this field is absent, current featureSetCombination can still be used for DAPS.*

*Proposal 4: ca-BandwidthClassDL-NR and ca-BandwidthClassUL-NR are not applied to DAPS handover if featuresetcombinationDAPS is included in a band combination.*

*Proposal 5: For DAPS handover, supportedBandwidthDL and supportedBandwidthUL only indicate the supported DL and UL bandwidth of source cell or target cell if featuresetcombinationDAPS is included in a band combination, i.e. a fallback per CC bandwidth is not validated.*

*Proposal 6: UE reports support for intra-frequency DAPS “per FS”.*

Discussion

- Huawei clarifies that LTE changes can be postponed until NR design is more stable.

- Huawei clarifies that for P1, 4 and 5, online is needed.

- Intel wonders if UE can indicate DAPS support for BC with >2 CCs? How do we handle SCells? Huawei thinks we have no SCells during DAPS HO. If there are >2CCs, for every pair UE can indicate DAPS parameters. QC wonders how can we guarantee different capabilities for source and target? Nokia thinks the “pairing” for >2 CCs is not so clear and could create more testing and it may not be possible.

- Huawei indicates that for P2/3, if UE has the same CA capability for DAPS, same FS works. But different capabilities are not possible to indicate.

- Intel thinks new FS allows UE to support different capabilities for DAPS HO. This allows also different BW class and other relaxations, or UE that supports DAPS but not CA. This would abandon BW class aspect for DAPS, making SCell support more difficult. Could only support 2 CCs. QC thinks this will just increase overhead. Also, for intra-frequency, all capabilities are in the new FS so how can the support be indicated as per P2?

- Ericsson thinks we could agree to have FS for intra-frequency DAPS and FSC for DAPS. Huawei would be fine with this.

- UE capability rapporteur indicates that the mega-CR would be provided on Monday.

- Intel wonders what we do for LTE? Huawei clarifies FS is only for MR-DC in LTE.

- Ericsson thinks we can’t dummify later on as that will increase overhead. Having per-band per-BC bit set to zero will be bad for size. Would like to do the same for LTE and have capabilities per-BC. QC wonders what this would mean for intra-frequency: Is it for all bands or will there be single-band BC? Ericsson thinks this will still be better than current.

- Ericsson

**Agreements**

**2: define a new featureSetCombinationDAPS to indicate DAPS UE capability.**

**6: UE reports support for intra-frequency DAPS “per FS”.**

* Continue discussion [214] on CRs until Friday morning. If CRs are not ready by then, we will retain existing DAPS capabilities. this is not intended to change functionality but reduce overhead.
* FFS what we do for LTE (no consensus to do anything in this meeting)

2nd round discussion

- Huawei reports that the CRs and LS are ready and only one minor comment on naming was received. Also P1 and P4 from discussion were discussed but no consensus. Ericsson also proposed that for LTE there could be different grouping that could be discussed online.

- Ericsson clarifies LTE part would be capabilities could be put inside SEQUENCE instead of having 4 fields as that reduces the number of optinoality bits for UEs not supporting DAPS.

[R2-2008145](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008145.zip) NR RRC CR

**=> Endorsed (to be merged to the mega-CR on capabilities)**

[R2-2008146](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008146.zip) 38.306 CR

**=> Endorsed (to be merged to the mega-CR on capabilities, might require changes based on post-meeting email discussion)**

- Huawei indicates also RILs I005 and I006 have been addressed in this CR.

- QC thinks ASN.1 is fine but interpretation is not clear. Was Huawei intention to discuss those now or over email? E.g. does UE need to signal intra-freq DAPS twice? For inter-freq, do we signal single band or BC?

- Huawei clarifies that for intra-freq DAPS, the intent is that all CCs with UL can be source and target. Could discuss this over email discussion as it involves only clarifications to 3x.306. MediaTek thinks it may be necessary to signal these twice but agrees to discuss over email. Apple also agrees with MediaTek.

- Apple also wonders how intra-band inter-frequency works.

- Apple wonders if UE supports FR1-FR2 DC but not CA – do we need to add additional parameters? Also wonders if we need something about diffSCS in FS-UL? Huawei clarifies that DC/CA was clarified as FS0 could be indicated to FR2 band. For diffSCS, both UL and DL should include the value if UE supports it. QC thinks Apple meant that with the proposed structure UE may support FR1-FR2 DC with DAPS but not FR1-FR2 CA with DAPS. Intel thinks DAPS doesn’t work with DC. Huawei wonders if this is really the case as UE can use FS0 in the FR2 band? QC doesn’t think that’s possible as inter-freq is under CA-ParametersNR.

**=> Discuss if the consequence of the signalling structure is that UE supporting FR1-FR2 DAPS has to support FR1-FR2 CA (same as before)?**

* [Post111-e#xx][DAPS] DAPS capability structure clarifications (Huawei)

Scope: Discuss whether capability descriptions need changes based on [R2-200814](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008146.zip)5 (this may require change over what was endorsed in [R2-2008146](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008146.zip)).

Intended outcome: Email discussion summary + CR (if needed)

Deadline: Long

[R2-2008626](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008626.zip) 36.331 CR

- Ericsson explains this is just about adding SEQUENCE to allow UEs not supporting DAPS to only use 1 optionality bit per BC to reduce overhead. QC and Huawei agrees with this.

**=> Agreed**

[R2-2008149](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008149.zip) LS to RAN1/4 on DAPS capabilities

* Ericsson wonders if RAN1/4 needs any actions. Huawei clarifies it is not intended to. This is just informing the other groups of RAN2 decision.
* QC wonders how this works with the RAN1 “baseline capability” discussion. Huawei thinks this can be added to 306 later on.

**=> Agreed**

### 6.8.2 MAC Corrections

By Web Conf (Friday August 28th)

*SCell reactivation:*

[R2-2006679](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006679.zip) Discussion on Scell reactivation in a dormant and non-dormant BWP SHARP Corporation discussion Rel-16 LTE\_NR\_DC\_CA\_enh-Core

* [208] Reactivation of SCell is supported for any BWP. In case of reactivation of dormant BWP regular dormant operation continues (e.g. no UL activity, CSI reporting) and PHR is not sent.
* CR based on above is discussed until Friday morning 07:00 UTC via [208]. Final CR can be provided in [R2-2008180](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008180.zip).

2nd round discussion

[R2-2008180](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008180.zip) Correction on dormant SCell Nokia, Nokia Shanghai Bell, Samsung CR Rel-16 38.321 16.1.0 0884 - F LTE\_NR\_DC\_CA\_enh-Core

* Nokia notes that changes-on-changes were removed from Samsung TP, and change to “SpCell” for CSI reporting was nto done because CSI can be reported also on PUCCH SCell.
* CR is agreed

## 8.8 RAN slicing SI

(FS\_NR\_slice; leading WG: RAN2; REL-17; WID: RP-193254)

By Web Conf (Friday August 28th)

* [AT111-e][213][RAN slicing] Use cases and deployment scenarios (CMCC)

Scope:

* + - Discuss use cases and deployment scenarios based on online decisions.
    - Capture agreements from this meeting in a TP to the TR

Intended outcome:

* + - Discussion summary in [R2-2008143](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008143.zip) (by email rapporteur), including TP for the TR.

Deadline for providing comments, for rapporteur inputs, conclusions and CR finalization:

* + - Deadline for companies' feedback: Wednesday 2020-08-26 12:00 UTC
    - Deadline for rapporteur's summary (in [R2-2008143](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008143.zip)): Thursday 2020-08-27 12:00 UTC

[R2-2008143](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008143.zip) Summary of discussion [213] on Use cases and deployment scenarios (CMCC) CMCC discussion FS\_NR\_slice Late

*[Cat a] Proposal 1: The scenario TP to TS 38.832 is agreeable with the following changes:*

*- generalize the frequency and slice in figure 1*

*- add “Editor Note: Additional scenarios can be discussed as part of the study”. And adding new scenario figures can be discussed in next meeting.*

*- delete the wording “layer”*

*- change the title for figure 1 to “An example for slice deployment scenario”*

*[Cat a] Proposal 2: Capture the following agreements into TR 38.832:*

*- For each scenario we study both IDLE and INACTIVE and determine whether there is need for a solution and possible solutions. Connected mode will also be considered but with a lower priority.*

*- We will investigate whether the R15 mechanism (e.g. dedicated priority mechanism) can solve the above issues and study if some enhancements are needed.*

*- Editor Note: Both cell selection and cell re-selection will be studied.*

*- It will be studied how to enable UE’s fast access for the intended slice with slice-based RACH resources/configuration and RACH parameters prioritization, and whether identified issues can be solved by legacy mechanisms.*

*[Cat a] Proposal 3: The scope for the long term email discussion is:*

*- Discuss the issue that RAN2 needs to address in this SI for the agreed scenario, and whether to add new scenarios can be also discussed.*

*- Discuss the meaning of the intended slice, and how or whether the UE knows the intended slice for MO and/or MT services. In addition, discuss whether the intended slice can always be obtained by UE.*

*- Discuss the candidate solutions which can address the above issues, and the solutions in the contributions in RAN2-111-e meeting will be summarized by rapporteur.*

*- Discuss whether the R15 mechanism (e.g. dedicated priority mechanism) can solve the above issues.*

*- Discuss the use cases or intentions for slice-based RACH configuration or RACH parameters prioritization, and discuss whether identified issues can be solved by legacy mechanisms.*

*The above discussions are the priority for this SI, and other aspects may be also considered if there are enough supports to be studied.*

* **P1 and P2 are noted**
* **Post-meeting email scope according to P3. Can use phases in discussion to help not having too huge discussion at once.**

Post-meeting email discussion

* [Post111-e#xx][NR][RAN slicing] Progressing RAN slicing SI (CMCC)

Scope: Based on online agreements

Intended outcome: Email discussion summary + TP

Deadline: Long

[R2-2008549](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008549.zip) Draft TR 38.832-010

* **Draft TR is endorsed from RAN2 perspective**

Discussion

- Nokia is generally fine but is not sure all proposals are OK. Some P2 aspects could be discussed over P3, i.e. email. CMCC clarifies this has already been done.

- Chair wonders if the email scope is too large? CMCC clarifies many companies have provided solutions already so could discuss solutions over email after the meeting. Xiaomi would like to deprioritize access barring in the email discussion. CMCC thinks there were contributions on this. OPPO thinks we have UAC and cell barring both and can discuss over email.

- Nokia wonders about the RACH-related objective: SA2 work is ongoing so we may need to check how that matches RAN2 work. Could focus on cell reselection and have lower priority for RACH. CMCC thinks we should cover both and decide in the next meeting. QC agrees.

# NOT TREATED ONLINE DURING THE MEETING

## 8.3 Multi SIM

(LTE\_NR\_MUSIM-Core; leading WG: RAN2; REL-17; WID: RP-201309)

Time budget: 0 TU

Tdoc Limitation: 2 tdocs

Email max expectation: 0 threads

This item will not be treated at meeting. However it is expected to receive LSes that need to be replied, and it is exptected that the LSes will be discussed by email to next meeting. Companies may input in order to announce their interntions and thus facilitate coordination etc.

Post-meeting email discussion

* Email content to be announced during the main session on Thursday, Aug 27th or BO2 CB session on Friday Aug 28th, with potential scope below
* [Post111-e#xx][NR][Multi-SIM] TBD: Work prioritization for Multi-SIM (vivo)

Scope: Discuss the WI use cases and objectives, including priority between them (if any). If LS from SA2 is received, can also discuss draft LS reply.

Intended outcome: Email discussion report + draft SA2 reply LS (IF discussed).

Deadline: Long

*Rapporteur input: Work plan and overview*

[R2-2007163](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007163.zip) Work plan for Multi SIM WI vivo, Charter Communications discussion

[R2-2007164](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007164.zip) Initial Considerations for Multi-SIM vivo discussion

*Operator input:*

[R2-2006540](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006540.zip) Guidance for SA2 on Solution #16 for Key Issue 2 Vodafone discussion

[R2-2006916](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006916.zip) Considerations for Multi-SIM WI Objectives Charter Communications discussion Rel-17

[R2-2006981](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006981.zip) Consideration on Multi-SIM China Telecom discussion

[R2-2007357](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007357.zip) Support of UE capabilities coordination for Multi-USIM UEs China Telecommunications discussion

[R2-2007418](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007418.zip) Discussion on the paging collision and interruption issues for multi-sim UEs CMCC discussion Rel-17 LTE\_NR\_MUSIM-Core

*NW vendor inputs:*

[R2-2006627](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006627.zip) Consideration on the Work Scope for Multi-SIM CATT discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2007207](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007207.zip) Overview of Multi-SIM ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2007208](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007208.zip) Consideration on the RAN2 issues on Multi-SIM ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2007352](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007352.zip) Clarification and Finalisation of Scope for MUSIM Work Nokia, Nokia Shanghai Bell discussion Rel-17

[R2-2007353](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007353.zip) Paging reception for MUSIM scenario Nokia, Nokia Shanghai Bell discussion Rel-17

[R2-2007394](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007394.zip) Way forward for the progress of Multi-SIM WI in RAN2 Huawei, HiSilicon discussion

[R2-2007396](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007396.zip) Discussion on Multi-SIM WI Objectives 1 and 2 Huawei, HiSilicon discussion

[R2-2007602](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007602.zip) Graceful leaving for a MultiSIM device Ericsson discussion

[R2-2007603](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007603.zip) Paging collision avoidance Ericsson discussion

*UE vendor inputs:*

[R2-2006807](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006807.zip) Discussion on Multi-SIM OPPO discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2006944](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2006944.zip) Handling of paging collision for Multi-SIM Qualcomm Incorporated discussion

[R2-2007129](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007129.zip) Coordination of concurrent communication for Multi-SIM Qualcomm Incorporated discussion

[R2-2007179](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007179.zip) Discussion on Multi-SIM Sony, Convida Wireless discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2007191](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007191.zip) Support for Multi-SIM Devices MediaTek Inc. discussion Rel-17

[R2-2007620](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007620.zip) RAN2 impacts of Multi-SIM support Futurewei Technologies discussion

[R2-2007740](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007740.zip) Mechanism for UE to notify network switch ASUSTeK discussion Rel-16 LTE\_NR\_MUSIM-Core

[R2-2007952](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007952.zip) General consideration for solving MUSIM problems Xiaomi Communications discussion

[R2-2007956](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007956.zip) Discussion of the coordinated leaving problem Xiaomi Communications discussion

[R2-2007961](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2007961.zip) Solution analysis for R17 Multi-SIM KI#2 and KI#3 Intel Corporation discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2008020](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008020.zip) General considerations on potential RAN2 works for Multi-USIM devices Samsung Electronics Co., Ltd discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2008021](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_111-e\R2-2008021.zip) Overview on SA2 progress for Multi-USIM devices Samsung Electronics Co., Ltd discussion Rel-17 LTE\_NR\_MUSIM-Core

## Summary