3GPP TSG-RAN WG2 Meeting #115-e draftR2- 2108833

Electronic meeting, Aug 16th - 27th, 2021

Agenda Item: 10.3

Source: Session Chair (Ericsson)

Title: draftReport eMTC breakout session

Document for: Approval

**General**

Recording of voice or video at meetings is not used in 3GPP. This applies also to this e-Meeting. At this e-Meeting, no specific actions are taken to prevent the recording of web conferences. Companies that have concerns related to recordings, if any, may express those by email in the main meeting organizational thread [AT115-e][000]

Please see the following Tdocs for e-meeting guidance:

[R2-2106900](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_115-e/Docs/R2-2106900.zip) Agenda for RAN2#115-e Chairman agenda

[R2-2106469](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_114-e/Docs/R2-2106469.zip) 3GPP TSG RAN WG2 Handbook (05/2021) Chairman discussion

**Time Schedule**Please refer to the latest schedule in the RAN2 inbox on the public 3GPP servers.

**Access Tools**

*HTTP Upload Tool:*

ETSI IT has created a facility in Inbox and Inbox/Drafts folders on the public 3GPP servers to allow delegates to upload their documents using a web browser (however Internet Explorer is not yet supported). Open your browser and navigate to your chosen folder – for example,

<https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_115-e/Inbox>

Click the green button to log in using your EOL account. A panel will appear in the upper part of the screen and documents may be dragged and dropped onto this landing pad; this causes them to be uploaded to the folder.

*Secure FTP:*

Those e-delegates who prefer to use FTP-like access to our e-meeting Inbox & Draft folders but are concerned by their usernames and passwords being sent unencrypted over the internet, ETSI IT has fitted the server with FTPS (SSL) so delegates can connect from their favourite FTP client using the address: ftps.3gpp.org. Please enter your username and password when prompted.

**Organizational**

* Incoming LSs are noted by default. Contact companies should flag LSs that need to be replied from this meeting.
* Legacy topics will be treated by email only unless indicated explicitly. Please see the list of offline email discussions below.
* Rel-16 (draft) CRs and text proposals will be handled as part of the email discussion on the corresponding CR(s) or the ASN.1 review email discussion if associated with a RIL#.
* All organizational emails and notes will be shared over the following email discussion throughout both meeting weeks:
* [AT115-e][400][eMTC/NB-IoT] Organizational Emre’s session

Scope:

* Share plans for the e-meeting and make announcements
* Share status of email discussions
* Share meeting minutes and agreements for review and endorsement

Deadline: Friday, Aug 27th 10:00 UTC

Status: Started

**List and Status of Offline Email Discussions**

NOTE: The official kick off date for these email discussions are Monday Aug 16th at 7:00 UTC. The rapporteurs can share them on the reflector earlier, however companies are not required to participate before the official kick off date. The deadlines refer to the deadline for providing company comments unless stated otherwise.

* [AT115-e][401][eMTC R16] Indication of RRC\_INACTIVE support in SIB1 (Huawei)

Status: Started

**Scope:** Check whether the intention is agreeable and there is sufficient support  
in principle; collect initial comments.

**Intended outcome:** Report in R2-2108906

**Deadline:** Wednesday 2021-08-18 12:00 UTC

* [AT115-e][402][eMTC R16] Paging resource determination (ZTE)

Status: Started

**Scope:** Check whether the intention is agreeable and there is sufficient support  
in principle; collect initial comments.

**Intended outcome:** Report in R2-2108907

**Deadline:** Wednesday 2021-08-18 12:00 UTC

# 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

## 4.1 NB-IoT corrections Rel-15 and earlier

Documents in this agenda item will be handled in a break out session. Common NB-IoT/eMTC parts treated jointly with 4.2.

## 4.2 eMTC corrections Rel-15 and earlier

Documents in this agenda item will be handled in a break out session. Common NB-IoT/eMTC parts treated jointly with 4.1. No web conference is planned for this agenda item.

[R2-2107773](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_115-e/Docs/R2-2107773.zip) Key stream reuse issue of EDT and PUR NEC discussion Rel-15 NB\_IOTenh2-Core, LTE\_eMTC4-Core

- Huawei thinks this was discussed in Rel-15 and RAN2 asked SA3 and concluded as it is in the spec now.

- QC wonders how likely this, i.e., that different payloads are transmitted with the same key, is to happen. Ericsson agrees and thinks this seems to be a corner case.

- NEC wonders why this is acceptable for IoT yet, it is something under discussion within the context of SDT.

- QC thinks using the same key + count to transmit a different payload is not allowed and that is clear in the spec so there are means to avoid it. Nokia agrees.

- ZTE also thinks that this is a corner case and RAN2 can wait for the outcome of the discussion for SDT. NEC explains that option 1 in the contribution has been agreed for SDT and other options can be considered if time allows.

* RAN2 assumes that UE should avoid a consecutive EDT or PUR transmission with a different payload but same security key.

**7 Rel-16 EUTRA Work Items**

*Essential corrections*

**7.2 Additional MTC enhancements for LTE**

*(LTE\_eMTC5-Core; LTE\_eMTC5-Core; leading WG: RAN1; REL-16; started: Jun 18; Completed: June 20; WID: RP192875;)*

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

*Some sub-items in 7.2 and 7.3 may be treated jointly.*

7.2.1 General and Stage-2 corrections

*Including incoming LSs*

[R2-2106906](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_115-e/Docs/R2-2106906.zip) Reply LS on timing of neighbor cell RSS-based measurements (R1-2104033; contact: Qualcomm) RAN1 LS in Rel-16 LTE\_eMTC5-Core To:RAN4 Cc:RAN2

* Noted

[R2-2106915](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_115-e/Docs/R2-2106915.zip) Reply LS on RSS based RSRQ for LTE-MTC (R1-2106215; contact: Huawei) RAN1 LS in Rel-16 LTE\_eMTC5-Core To:RAN4 Cc:RAN2

* Noted

7.2.2 Connection to 5GC corrections

*Connection to 5GC for MTC and NB-IoT is treated jointly under this AI.*

[R2-2107428](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_115-e/Docs/R2-2107428.zip) Introduction of an indication of RRC\_INACTIVE support in SIB1 Huawei, HiSilicon CR Rel-17 36.331 16.5.0 4693 - F LTE\_eMTC5-Core Withdrawn

[R2-2107454](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_115-e/Docs/R2-2107454.zip) Introduction of an indication of RRC\_INACTIVE support in SIB1 Huawei, HiSilicon CR Rel-16 36.331 16.5.0 4694 - F LTE\_eMTC5-Core

* [AT115-e][401][eMTC R16] Indication of RRC\_INACTIVE support in SIB1 (Huawei)

Status: Started

**Scope:** Check whether the intention is agreeable and there is sufficient support  
in principle; collect initial comments.

**Intended outcome:** Report in R2-2108906

**Deadline:** Wednesday 2021-08-18 12:00 UTC

[R2-2108906](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_115-e/Docs/R2-2108906.zip) Indication of RRC\_INACTIVE support in SIB1 Huawei, HiSilicon

Proposal: The CR is not pursued.

* Huawei thinks the network may not always support RRC\_INACTIVE if it is connected to 5GC.
* ZTE agrees that this may be the case since there was no explict agreement but then there are other means for the netwrok to handle that.
* The CR in R2-2107454 is not pursued.

[R2-2107769](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_115-e/Docs/R2-2107769.zip) 36304\_Correction on paging resource determination ZTE Corporation, Sanechips, Qualcomm Incorporated CR Rel-16 36.304 16.4.0 0832 - F LTE\_eMTC5-Core

* [AT115-e][402][eMTC R16] Paging resource determination (ZTE)

Status: Started

**Scope:** Check whether the intention is agreeable and there is sufficient support  
in principle; collect initial comments.

**Intended outcome:** Report in R2-2108907

**Deadline:** Wednesday 2021-08-18 12:00 UTC

[R2-2108907](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_115-e/Docs/R2-2108907.zip) Report of [AT115-e][402][eMTC R16] Paging resource determination ZTE Corporation, Sanechips

Proposal 1: RAN2 confirms the working assumption: For an eMTC UE in RRC\_INACTIVE same rules as for RRC\_IDLE are used to determine the PNB and i\_s.

Proposal 2: The CR in R2-2107769 is agreeable with only change in cover page of updating the working assumption to agreement.

* The working assumption “For an eMTC UE in RRC\_INACTIVE same rules as for RRC\_IDLE are used to determine the PNB and i\_s” is confirmed.
* The CR in R2-2107769 is revised in R2-2108908 with the following changes and agreed unseen: Update the working assumption on the cover page to reflect that it has been confirmed. Replace the changed text with “In RRC\_INACTIVE state, a BL UE or a UE in enhanced coverage uses the T value applicable for RRC\_IDLE state for the determination of PNB and i\_s.”

7.2.3 Other corrections

*Including corrections related to Mobile-terminated early data transmission (MT-EDT), Scheduling multiple DL/UL transport blocks, Quality report in Msg3, MPDCCH performance improvement using CRS, Improvements for non-BL UEs, Stand-alone deployment, Mobility enhancements, coexistence with NR and MTC specific topics. Corrections related to mobile-terminated early data transmission, scheduling multiple DL/UL transport blocks and coexistence with NR are treated jointly for MTC and NB-IoT under this AI.*