3GPP TSG-RAN WG2 Meeting #114-e draftR2- 2106473

Electronic meeting, May 19th - 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 [AT114-e][000]

Please see the following Tdocs for e-meeting guidance:

[R2-2104700](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_114-e/Docs/R2-2104700.zip) Agenda for RAN2#114-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_114-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:
* [AT114-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: Thursday, May 27th 10:00 UTC

 Status: Started

**List and Status of Offline Email Discussions**

NOTE: The official kick off date for these email discussions are Wednesday May 19th 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.

* [AT114-e][401][eMTC R16] Paging DRX cycle (ZTE)

Status: Started

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

      **Intended outcome:** Report in R2-2106546

      **Deadline:** Monday 2021-05-24 12:00 UTC

* [AT114-e][402][eMTC R16] systemInfoUnchanged-BR in RSS (Qualcomm)

Status: Started

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

      **Intended outcome:** Report in R2-2106547

      **Deadline:** Monday 2021-05-24 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.

**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*

[R2-2104709](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_114-e/Docs/R2-2104709.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

7.2.2 Connection to 5GC corrections

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

[R2-2106285](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_114-e/Docs/R2-2106285.zip) Discussion on paging resources determination for eMTC ZTE Corporation, Sanechips discussion Rel-16 LTE\_eMTC5-Core

[R2-2106307](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_114-e/Docs/R2-2106307.zip) 36331\_(R16)\_Clarification on paging DRX cycle ZTE Corporation, Sanechips CR Rel-16 36.331 16.4.0 4682 - F LTE\_5GCN\_connect-Core, LTE\_eMTC5-Core

[R2-2106313](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_114-e/Docs/R2-2106313.zip) 36304\_(R16)\_Correction on paging resources determination-Alt1 ZTE Corporation, Sanechips CR Rel-16 36.304 16.3.0 0829 - F LTE\_5GCN\_connect-Core, LTE\_eMTC5-Core

[R2-2106320](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_114-e/Docs/R2-2106320.zip) 36304\_(R16)\_Correction on paging resources determination-Alt2 ZTE Corporation, Sanechips CR Rel-16 36.304 16.3.0 0830 - F LTE\_5GCN\_connect-Core, LTE\_eMTC5-Core

[R2-2106322](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_114-e/Docs/R2-2106322.zip) 36300\_(R16)\_Clarification on paging in RRC\_INACTIVE ZTE Corporation, Sanechips CR Rel-16 36.300 16.5.0 1345 - F LTE\_5GCN\_connect-Core, LTE\_eMTC5-Core

[R2-2106326](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_114-e/Docs/R2-2106326.zip) draft LS to RAN3 to clarify paging DRX cycle ZTE Corporation, Sanechips LS out Rel-16 LTE\_5GCN\_connect-Core, LTE\_eMTC5-Core To:RAN3

* [AT114-e][401][eMTC R16] Paging DRX cycle (ZTE)

Status: Started

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

      **Intended outcome:** Report in R2-2106546

      **Deadline:** Monday 2021-05-24 12:00 UTC

[R2-2106546](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_114-e/Docs/R2-2106546.zip) Report of [AT114-e][401][eMTC R16] Paging DRX cycle ZTE Corporation, Sanechips discussion Rel-16 LTE\_eMTC5-Core

Proposal 1: Working assumption: to adopt the following solution to address the issue that PNB and i\_s determination are inconsistent between eMTC UE in RRC\_INACTIVE and NW from Rel-16 and without UE capability:

- The eMTC UE in RRC\_INACTIVE should use the same rules as for RRC\_IDLE to determine the PNB and i\_s.

* QC supports the proposal and thinks that we should wait until working assumption is confirmed. But it would be good if other changes, if agreed, are captured in a CR.
* LG, Ericsson and Huawei support the proposal.
* Ericsson is fine with the working assumptions but wonders whether other changes that are agreed can be captured in a CR now. Huawei is fine with the suggestion.

Proposal 2: RAN2 discuss which way would be used for implementing the agreement in proposal 1, e.g., to clarify paging resources calculation or to clarify DRX cycle (T) determination.

Proposal 3: The following issues related to RAN paging cycle need to be clarified during CR discussion:

- Whether RAN paging cycle does not need to be configured if idle mode eDRX cycle is <=10.24sec?

- If RAN paging cycle is not configured, whether UE would monitor paging outside of the PTW and if yes, what cycle would be used by UE?

Proposal 4: The CR changes for TS 36.300 and in section 7.3 in TS 36.304 are not pursued.

Proposal 5: Whether to send LS to RAN3 and what’s the content would be decided later after CRs are agreed.

Proposal 6: To remove LTE\_5GCN\_connect-Core WI code from cover page of the CRs.

* Working assumption: For an eMTC UE in RRC\_INACTIVE same rules as for RRC\_IDLE to are used to determine the PNB and i\_s.
* RAN2 intends to make the changes captured in the working assumption for eMTC from Rel-16 without new UE capability (This is a NBC change)
* No changes to TS 36.300 are needed.
* No changes to section 7.3 in TS 36.304 are needed.
* [Post114-e][401][eMTC R16] Paging DRX cycle in RRC\_INACTIVE (ZTE)

 Scope: In RAN2#113bis-e, the following was agreed: “Working assumption: The case that extended DRX value of 512 radio frames is configured by upper layers should be handled in RRC\_INACTIVE.” Check if the working assumption can be confirmed as an agreement and, if so, discuss and conclude how to capture in the specifications. Consider capturing the editorial change of moving the condition “if allocated by upper layers” from the back of parameter “default paging cycle” to the back of parameter “UE specific paging cycle” (only for Rel-16).

 Intended outcome: Report in R2-2106548 and agreeable CR in R2-2106549, if the working assumption is confirmed

 Deadline: Short

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.*

[R2-2105922](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_114-e/Docs/R2-2105922.zip) Clarify systemInfoUnchanged-BR also transmitted in RSS Qualcomm Incorporated CR Rel-16 36.331 16.4.0 4668 - F LTE\_eMTC5-Core

* [AT114-e][402][eMTC R16] systemInfoUnchanged-BR in RSS (Qualcomm)

Status: Started

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

      **Intended outcome:** Report in R2-2106547

      **Deadline:** Monday 2021-05-24 12:00 UTC

[R2-2106547](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_114-e/Docs/R2-2106547.zip) Report of [AT114-e][402][eMTC R16] systemInfoUnchanged-BR in RSS Qualcomm Incorporated discussion Rel-16 LTE\_eMTC5-Core

Proposal: RAN2 discuss whether to pursue with the intent of the CR.

* QC thinks the indication is not clear in RAN2 specs and one would need to check the RAN1 specs to find out.
* Huawei agrees with the intention and thinks only issues that are broken should be addressed at this point. QC wonders if a Rel-17 CR would be acceptable.
* Sequans agrees with QC and confirms that this is a clarification. Fraunhofer and Ericsson also agree.
* QC states we should at least add the reference to the related RAN1 spec.
* RAN2 will have a short, i.e., 1-week, email discussion to agree on the Rel-16 CR.
* [Post114-e][402][eMTC R16] systemInfoUnchanged-BR in RSS (Qualcomm)

 Scope: Collect feedback from companies regarding the wording and update the CR accordingly

 Intended outcome: Agreeable CR in R2-2106550

 Deadline: Short