3GPP TSG-RAN WG2 Meeting #113-e draftR2-2101953

Electronic meeting, Jan 25th – Feb 5th, 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 [AT113-e][000]

Please see the following Tdocs for e-meeting guidance:

[R2-2100000](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_113-e/Docs/R2-2100000.zip) Agenda for RAN2#113-e Chairman agenda

[R2-2100351](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_113-e/Docs/R2-2100351.zip) 3GPP TSG RAN WG2 Handbook (01/2021) ETSI MCC discussion

[R2-2100352](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_113-e/Docs/R2-2100352.zip) RAN2#113-e Meeting Guidelines ETSI MCC 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_113-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:
* [AT113-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, February 5th 11:00 UTC

 Status: Started

**List and Status of Offline Email Discussions**

NOTE: The official kick off date for these email discussions are Monday January 25th 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.

* [AT113-e][401][eMTC R15] Applicability of CRS muting configuration (Huawei)

Status: Closed

      **Scope:**

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

      **Intended outcome:**

Report in R2-2102061

      **Deadline:** Thursday 2021-01-28 11:00 UTC

* [AT113-e][402][eMTC R16] System information change notification in RRC\_INACTIVE (ZTE)

Status: Started

      **Scope:**

Week 1: Check whether the intention is agreeable and there is sufficient support in principle; collect initial comments.

Week 2: Agreeable CR, if there is sufficient support

      **Intended outcome:**

Week 1: Report in R2-2102062

Week 2: Agreeable 36.331 CR in R2-2102066

      **Deadline:**

 Week 1: Thursday 2021-01-28 11:00 UTC

 Week 2: Thursday 2021-02-04 11:00 UTC

* [AT113-e][403][eMTC/NB-IoT R16] UAC parameters acquisition (Huawei)

Status: Started

      **Scope:**

Week 1: Check whether the intention is agreeable and there is sufficient support in principle; collect initial comments.

Week 2: Agreeable CR, if there is sufficient support

      **Intended outcome:**

Week 1: Report in R2-2102063

Week 2: Agreeable 36.331 CR in R2-2102068

      **Deadline:**

 Week 1: Thursday 2021-01-28 11:00 UTC

 Week 2: Thursday 2021-02-04 11:00 UTC

* [AT113-e][404][eMTC R16] PDCCH-based HARQ-ACK for multi-TB scheduling (Qualcomm)

Status: Started

      **Scope:**

Week 1: Check whether the intention is agreeable and there is sufficient support in principle; collect initial comments.

Week 2: Agreeable CR, if there is sufficient support

      **Intended outcome:**

Week 1: Report in R2-2102064

Week 2: Agreeable 36.321 CR in R2-2102069

      **Deadline:**

 Week 1: Thursday 2021-01-28 11:00 UTC

 Week 2: Thursday 2021-02-04 11:00 UTC

* [AT113-e][405][eMTC R16]  SIB29 acquisition (Huawei)

Status: Closed

      **Scope:**

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

      **Intended outcome:**

Report in R2-2102065

      **Deadline:** Thursday 2021-01-28 11:00 UTC

* [AT113-e][406][eMTC R16]  Clarification to the DRX cycle in RRC\_IDLE and RRC\_INACTIVE (Huawei)

Status: Started

      **Scope:**

Conclude the discussion considering the outcome from the session on LTE legacy.

      **Intended outcome:**

Agreeable 36.331 CR in R2-2102067

      **Deadline:** Thursday 2021-02-04 11:00 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*

**4.2 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.*

[R2-2101041](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_113-e/Docs/R2-2101041.zip) Correction to the applicability of CRS muting configuration Huawei, HiSilicon CR Rel-15 36.331 15.12.0 4565 - F LTE\_eMTC4-Core

[R2-2101042](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_113-e/Docs/R2-2101042.zip) Correction to the applicability of CRS muting configuration Huawei, HiSilicon CR Rel-16 36.331 16.3.0 4566 - A LTE\_eMTC4-Core

* [AT113-e][401][eMTC R15] Applicability of CRS muting configuration (Huawei)

Status: Closed

      **Scope:**

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

      **Intended outcome:**

Report in R2-2102061

 **Deadline:** Thursday 2021-01-28 11:00 UTC

[R2-2102061](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_113-e/Docs/R2-2102061.zip) Offline 401 – Applicability of CRS muting configuration Huawei, HiSilicon discussion Rel-15 LTE\_eMTC4-Core

Proposal 1: Agree to the 36.331 CRs in R2-2101041 and R2-2101042.

* Ericsson wonders whether the feature will work for non-BL UEs in CE considering that a non-BL UE in “normal” coverage can support this feature,
* QC thinks this only applies to Cat-M UEs and there is no confusion in the specs with respect to that.
* CRs in R2-2101041 and R2-2101042 are agreed.

Proposal 2: No need to update 36.306.

* QC thinks it would be better to update 36.306. Ericsson thinks there is no need to update 36.306 since the requirements are referring to Cat-M1 and Cat-M2.
* No need to update 36.306.

**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*

[R2-2100072](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_113-e/Docs/R2-2100072.zip) Reply LS on early UE capability retrieval for eMTC (S2-2009345; contact: Qualcomm) SA2 LS in Rel-17 TEI16, TEI17, 5G\_CIoT To:RAN2 Cc:RAN, RAN3, CT1

* Noted

7.2.2 Connection to 5GC corrections

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

[R2-2100932](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_113-e/Docs/R2-2100932.zip) Discussion for clarification on SIB acquisition for UE in RRC\_INACTIVE ZTE Corporation, Sanechips discussion Rel-16 LTE\_eMTC5-Core

[R2-2100936](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_113-e/Docs/R2-2100936.zip) Clarification on SIB acquisition for UE in RRC\_INACTIVE ZTE Corporation, Sanechips CR Rel-16 36.331 16.3.0 4555 - F LTE\_eMTC5-Core

[R2-2101038](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_113-e/Docs/R2-2101038.zip) System information change notification in RRC\_INACTIVE Huawei, HiSilicon discussion Rel-16 LTE\_eMTC5-Core

[R2-2101155](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_113-e/Docs/R2-2101155.zip) SIB acquisition by eMTC UE in RRC-INACTIVE Qualcomm Incorporated discussion Rel-16 LTE\_eMTC5-Core

[R2-2101467](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_113-e/Docs/R2-2101467.zip) Clarification of SI acquisition for UEs configured with eDRX in RRC\_INACTIVE Ericsson LM CR Rel-16 36.331 16.3.0 4578 - F LTE\_eMTC5-Core

* [AT113-e][402][eMTC R16] System information change notification in RRC\_INACTIVE (ZTE)

Status: Started

      **Scope:**

Week 1: Check whether the intention is agreeable and there is sufficient support in principle; collect initial comments.

Week 2: Agreeable CR, if there is sufficient support

      **Intended outcome:**

Week 1: Report in R2-2102062

Week 2: Agreeable 36.331 CR in R2-2102066

      **Deadline:**

 Week1: Thursday 2021-01-28 11:00 UTC

 Week 2: Thursday 2021-02-04 11:00 UTC

[R2-2102062](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_113-e/Docs/R2-2102062.zip) Report of [AT113-e][402][eMTC R16] SIB change notification in RRC\_INACTIVE ZTE Corporation, Sanechips discussion Rel-16 LTE\_eMTC5-Core

Proposal 1: RAN2 to discuss which option for clarification on SIB change notification for UE in RRC\_INACTIVE is agreeable:

- Option 1: UE in RRC\_INACTIVE follows same system modification indication as it does in RRC\_IDLE. To clarify that, if idle mode eDRX cycle is configured and longer than modification period, the UE in RRC\_INACTIVE would follow systemInfoModification-eDRX indication.

- Option 2: To clarify that, if configured RAN paging cycle is longer than modification period, the UE in RRC\_INACTIVE would follow systemInfoModification-eDRX indication.

* QC prefers Option 1 assuming that it makes the UE implementation simpler since the UE does not need to consider that it is in idle mode. ZTE agrees.
* Option 1 is also acceptable to Ericsson.
* UE in RRC\_INACTIVE configured with idle mode eDRX cycle follows the idle mode eDRX cycle to determine which system information modification indication to monitor.

Proposal 2: To add a note in TS 36.331 section 5.2.1.3 to reflect the agreed clarification from proposal 1.

* LG thinks it is good to clarify the intention as captured in the agreement above
* QC thinks a change is not needed, but open to discuss depending on the text proposed for the change.
* Huawei supports to capture the clarification. ZTE and Ericsson agree.
* Discussion continues in [AT113-e][402] to agree on the exact wording to capture the clarification above.
* The CR can be provided in R2-2102066.

[R2-2102066](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_113-e/Docs/R2-2102066.zip) Clarification on SIB change notification in RRC\_INACTIVE ZTE Corporation, Sanechips CR Rel-16 36.331 16.3.0 4555 1 F LTE\_eMTC5-Core

*The Tdoc below is moved from AI 7.1.1*

[R2-2101036](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_113-e/Docs/R2-2101036.zip) Clarification to the DRX cycle in RRC\_IDLE and RRC\_INACTIVE Huawei, HiSilicon CR Rel-16 36.331 16.3.0 4483 2 F LTE\_eMTC5-Core, NB\_IOTenh3-Core, TEI16 R2-2009738

* [AT113-e][406][eMTC R16]  Clarification to the DRX cycle in RRC\_IDLE and RRC\_INACTIVE (Huawei)

Status: Started

      **Scope:**

Conclude the discussion considering the outcome from the session on LTE legacy.

      **Intended outcome:**

Agreeable 36.331 CR in R2-2102067

      **Deadline:** Thursday 2021-02-04 11:00 UTC

[R2-2102067](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_113-e/Docs/R2-2102067.zip) Clarification to the DRX cycle in RRC\_IDLE and RRC\_INACTIVE Huawei, HiSilicon CR Rel-16 36.331 16.3.0 4483 3 F LTE\_eMTC5-Core, NB\_IOTenh3-Core, TEI16 R2-2009738

[R2-2101039](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_113-e/Docs/R2-2101039.zip) Correction to UAC parameters acquisition Huawei, HiSilicon CR Rel-16 36.331 16.3.0 4563 - F LTE\_eMTC5-Core, NB\_IOTenh3-Core

* [AT113-e][403][eMTC/NB-IoT R16] UAC parameters acquisition (Huawei)

Status: Started

      **Scope:**

Week 1: Check whether the intention is agreeable and there is sufficient support in principle; collect initial comments.

Week 2: Agreeable CR, if there is sufficient support

      **Intended outcome:**

Week 1: Report in R2-2102063

Week 2: Agreeable 36.331 CR in R2-2102068

      **Deadline:**

 Week 1: Thursday 2021-01-28 11:00 UTC

 Week 2: Thursday 2021-02-04 11:00 UTC

[R2-2102063](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_113-e/Docs/R2-2102063.zip) Summary of Offline 403 – UAC parameters acquisition Huawei, HiSilicon discussion Rel-16 LTE\_eMTC5-Core, NB\_IOTenh3-Core

Proposal 1: Agree on having a CR to correct UAC parameters acquisition

Proposal 2: Discuss the detailed wording of the CR, revised with the initial comments, during phase 2.

* The proposed change in the CR is agreeable in principle
* Discussion continues in [AT113-e][403] to agree on the exact wording.
* The CR can be provided in R2-2102068

[R2-2102068](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_113-e/Docs/R2-2102068.zip) Correction to UAC parameters acquisition Huawei, HiSilicon CR Rel-16 36.331 16.3.0 4563 1 F LTE\_eMTC5-Core, NB\_IOTenh3-Core

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.*

[R2-2100735](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_113-e/Docs/R2-2100735.zip) PDCCH-based HARQ-ACK for a specific HARQ process with multi-TB scheduling Qualcomm Incorporated CR Rel-16 36.321 16.3.0 1517 - F LTE\_eMTC5-Core

* [AT113-e][404][eMTC R16] PDCCH-based HARQ-ACK for multi-TB scheduling (Qualcomm)

Status: Started

      **Scope:**

Week 1: Check whether the intention is agreeable and there is sufficient support in principle; collect initial comments.

Week 2: Agreeable CR, if there is sufficient support

      **Intended outcome:**

Week 1: Report in R2-2102064

Week 2: Agreeable 36.321 CR in R2-2102069

      **Deadline:**

Week 1: Thursday 2021-01-28 11:00 UTC

Week 2: Thursday 2021-02-04 11:00 UTC

[R2-2102064](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_113-e/Docs/R2-2102064.zip) [AT113-e][404][eMTC R16] PDCCH-based HARQ-ACK for multi-TB scheduling Qualcomm Incorporated discussion Rel-16 LTE\_eMTC5-Core

Proposal 1 The CR in R2-2100735 is agreeable.

Proposal 2 Text “process” in the change is revised to “process(es)”.

* Huawei thinks there is a need for change on the cover page regarding the backward compatibility aspect and suggests referring to the RAN1 update on the cover page. QC states there is already a reference to the RAN1 update.
* QC considers this as an alignment to the change in RAN1 specs and thus no need to consider as a non-backwards compatible change in RAN2.
* Huawei suggests capturing the consequences instead of referring to the inconsistency with the RAN1 specs in section “Consequences if not approved:”
* Ericsson agrees that there is a need for update on the cover page and suggests discussing that in Phase 2 and adds that summary part also needs an update.
* Update “process” in the proposed text with “process(es)”
* The proposed change in CR is agreeable with the change above, but we need further discussion on the cover page.
* Discussion continues in [AT113-e][404] and the CR can be provided in R2-2102069

[R2-2102069](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_113-e/Docs/R2-2102069.zip) PDCCH-based HARQ-ACK for a specific HARQ process with multi-TB scheduling Qualcomm Incorporated CR Rel-16 36.321 16.3.0 1517 1 F LTE\_eMTC5-Core

[R2-2101040](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_113-e/Docs/R2-2101040.zip) Correction to SIB29 acquisition Huawei, HiSilicon CR Rel-16 36.331 16.3.0 4564 - F LTE\_eMTC5-Core

* [AT113-e][405][eMTC R16]  SIB29 acquisition (Huawei)

Status: Closed

      **Scope:**

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

      **Intended outcome:**

Report in R2-2102065

      **Deadline:** Thursday 2021-01-28 11:00 UTC

[R2-2102065](http://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_113-e/Docs/R2-2102065.zip) Summary of offline 405 – SIB29 acquisition Huawei, HiSilicon discussion Rel-16 LTE\_eMTC5-Core

Proposal 1: Agree on having a CR to correct SIB29 acquisition

Proposal 2: Agree on the CR in R2-2101040.

* CR in R2-2101040 is agreed.