**3GPP TSG-RAN WG2 Meeting #118 electronic draftR2-2206157**

**Online, 9th – 20th May, 2022**

Agenda Item: 8.7

Source: Session Chair (Interdigital)

Title: draft Report NB-IoT breakout session

Document for: Approval

## General

Please see the following TDocs for e-meeting guidance:

[R2-2204400](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_118-e/Docs/R2-2204400.zip) Agenda for RAN2#118-e Chairman agenda

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

## List and Status of Offline Email Discussions

The deadlines refer to the deadline for providing company comments unless stated otherwise.

* [AT118-e][300][NBIOT/eMTC] Organisational Brian’s Session (Session Chair)

**Status**: closed

**Scope:** Comments to session notes. Kick-off and management of email discussions for NB-IoT session. Coordination issues. Other organisational issues and announcements.

**Intended outcome:** Approval of Report from NB-IoT session.

**Deadline:** EOM

* [AT118-e][301][NBIOT/eMTC R17] 36.331 CR (Qualcomm)

**Status**: started

**Scope:** update the correction CR

**Intended outcome:** agreed CR in R2-2206271

**Deadline:** extend to short post meeting discussion

* [AT118-e][302][NBIOT/eMTC R17] 36.304 CR (Nokia)

**Status**: started

**Scope:** Draft and update the correction CR based on the endorsed TPs.

**Intended outcome:** agreed CR in R2-2206272

**Deadline:** extend to short post meeting discussion

## 4.1 NB-IoT corrections Rel-16 and earlier

(NB\_IOTenh3-Core; leading WG: RAN1; REL-16; started: Jun 18; Completed: June 20; WID: RP-200293); REL-15 and Earlier WIs are in scope but not listed explicitly (long list). Documents in this agenda item will be handled in a break out session. Common NB-IoT/eMTC parts treated jointly with 4.2.

## 7.1 NB-IoT and eMTC enhancements

(NB\_IOTenh4\_LTE\_eMTC6-Core; leading WG: RAN1; REL-17; WID: RP-211340)

### 7.1.1 Organizational

LS in

CR Rapporteurs to provide baseline correction CRs, if needed. For smaller corrections, text clarifications etc please contact CR editor.

[R2-2204421](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_118-e/Docs/R2-2204421.zip) LS on use of CQI table for NB-IoT DL 16QAM (R1-2202880; contact: Huawei) RAN1 LS in Rel-17 To:RAN2 Cc:RAN4

* noted

[R2-2204423](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_118-e/Docs/R2-2204423.zip) LS on UE capability for 16QAM for NB-IoT (R1-2202893; contact: Qualcomm) RAN1 LS in Rel-17 To:RAN4 Cc:RAN2

* noted (revisit if RAN4 have anything to change)

[R2-2205564](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_118-e/Docs/R2-2205564.zip) Corrections based on ASN.1 review of R17 NB-IoT/eMTC Enhancements Qualcomm Incorporated CR Rel-17 36.331 17.0.0 4803 - F NB\_IOTenh4\_LTE\_eMTC6-Core Late

* Revised in R2-2206271
* [AT118-e][301][NBIOT/eMTC R17] 36.331 CR (Qualcomm)

**Status**: started

**Scope:** update the correction CR

**Intended outcome:** agreed CR in R2-2206271

**Deadline:** Tuesday 17th 1200 UTC

* Extend to short post meeting discussion to allow companies more time to check, and to take into account potential update from RAN4 on capabilities.
* [AT118-e][302][NBIOT/eMTC R17] 36.304 CR (Nokia)

**Status**: started

**Scope:** Draft and update the correction CR based on the endorsed TPs.

**Intended outcome:** agreed CR in R2-2206272

**Deadline:** Tuesday 17th 1200 UTC

* Extend to short post meeting discussion to allow companies more time to check

[R2-2205565](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_118-e/Docs/R2-2205565.zip) Report of ASN.1 R17 Review for NB-IoT/eMTC enhancements Qualcomm Incorporated discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core Late

- QC explain that the current version of the CR is aligned with proposals in this document

- ZTE have provided feedback directly to the CR

- Huawei think we have done everything from here.

* noted

### 7.1.2 Corrections

[R2-2205149](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_118-e/Docs/R2-2205149.zip) Clarification on NPUSCH repetition number for PUR with 16QAM ZTE Corporation, Sanechips CR Rel-17 36.331 17.0.0 4788 - F NB\_IOTenh4\_LTE\_eMTC6-Core

* QC thinks this is not needed because RAN1 spec uses 1 repetition regardless of the RRC configuration.
* Huawei thinks this parameter is not used in RAN1 for this feature.
* Not pursued

[R2-2205162](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_118-e/Docs/R2-2205162.zip) RILZ312, Z313, Z316, Z317, Z318 CEL-based paging ZTE Corporation, Sanechips CR Rel-17 36.331 17.0.0 4789 - F NB\_IOTenh4\_LTE\_eMTC6-Core

* Already addressed in the running CR
* noted

[R2-2205323](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_118-e/Docs/R2-2205323.zip) RIL H101 : Coverage based paging Huawei, HiSilicon discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

* 36.331 part already addressed in the running CR
* 36.304 TP endorsed to be included in rapporteur CR.

[R2-2205324](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_118-e/Docs/R2-2205324.zip) Correction to coverage based paging Huawei, HiSilicon draftCR Rel-17 36.304 17.0.0 F NB\_IOTenh4\_LTE\_eMTC6-Core

* QC thinks this is a good baseline for correcting. QC thinks we should also rename the heading.
* Ericsson wonders why to change “carrier selection”. Huawei explains that the group is selected rather than carrier in practise. ZTE agrees with Huawei.
* Include the changes as baseline in the rapporteur CR and discuss the details further.

[R2-2205878](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_118-e/Docs/R2-2205878.zip) RILZ312, Z313, Z316 CEL-based paging ZTE Corporation, Sanechips CR Rel-17 36.304 17.0.0 0848 - F NB\_IOTenh4\_LTE\_eMTC6-Core

* Merge with H101 TP in the rapporteur CR.

[R2-2206039](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_118-e/Docs/R2-2206039.zip) RIL H112 (new): 16 QAM DL configuration Huawei, HiSilicon discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

* - QC thinks this is already done in the CR.
* - ZTE thinks RAN1 spec could be updated
* - HW thinks this is used in multiple specs.
* Introduce an explicit parameter *npdsch-16QAM-Config*.

### 7.1.3 Other