3GPP TSG-RAN WG2 Meeting #112 electronic draftR2-2010707

**Online, November 2nd - 13th, 2020**

Agenda Item: 10.7

Source: Session Chair (Huawei)

Title: <draft> Report NB-IoT breakout session

Document for: Approval

## General

Please see the following TDoc for e-meeting guidance:

R2-2008700 Agenda for RAN2#112-e Chairman

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

## List and Status of Offline Email Discussions

NOTE: The official kick off date for these email discussions is Monday, November 02, 0700 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.

* [AT112-e][300][NBIOT] Organisational (Session Chair)

 **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:** Nov 13 1100 UTC

## 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.

## 7.3 Additional enhancements for NB-IoT

(NB\_IOTenh3-Core; leading WG: RAN1; REL-16; started: Jun 18; Completed: June 20; WID: RP-200293)

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.

Limit: 5-6 email threads

### 7.3.1 General and Stage-2 Corrections

Including incoming LSs etc

[R2-2008758](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2008758.zip) Reply LS on system support for WUS (S2-2006478; contact: Qualcomm) SA2 LS in Rel-15 NB\_IOTenh3-Core, LTE\_eMTC5-Core To:RAN2, RAN3

### 7.3.2 UE-group wake-up signal (WUS) Corrections

UE group wake Up signal for MTC and NB-IoT is treated jointly under this Agenda Item.

[R2-2009024](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2009024.zip) Discussion for correction on paging narrowband selection for eMTC UE ZTE Corporation, Sanechips discussion Rel-16 LTE\_eMTC5-Core

[R2-2010057](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2010057.zip) Correction on paging narrowband selection for eMTC UE ZTE Corporation, Sanechips CR Rel-16 36.304 16.2.0 0816 - F LTE\_eMTC5-Core

[R2-2009728](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2009728.zip) Clarification on the last used cell for GWUS Huawei, HiSilicon CR Rel-16 36.331 16.2.1 4479 - F NB\_IOTenh3-Core, LTE\_eMTC5-Core

[R2-2009729](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2009729.zip) Clarification on the last used cell for GWUS Huawei, HiSilicon CR Rel-16 36.304 16.2.0 0814 - F NB\_IOTenh3-Core, LTE\_eMTC5-Core

[R2-2010236](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2010236.zip) Clarification on WUS group set selection Ericsson CR Rel-16 36.304 16.2.0 0817 - F LTE\_eMTC5-Core, NB\_IOTenh3-Core

### 7.3.3 Transmission in preconfigured resources corrections

Transmission in preconfigured resources for MTC and NB-IoT is treated jointly under this Agenda Item.

[R2-2009730](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2009730.zip) Clarification on the reference (N)RSRP for the first TA validation for PUR Huawei, HiSilicon CR Rel-16 36.331 16.2.1 4480 - F NB\_IOTenh3-Core, LTE\_eMTC5-Core

### 7.3.4 Other NB-IoT Specific corrections

NB-IoT specific topics

[R2-2009733](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2009733.zip) Correction to CP RRC Connection Reestablishment in 5GC Huawei, HiSilicon CR Rel-16 36.331 16.2.1 4481 - F NB\_IOTenh3-Core

## 9.1 NB-IoT and eMTC enhancements

(NB\_IOTenh4\_LTE\_eMTC6-Core; leading WG: RAN1; REL-17; WID: RP-201306)

Time budget: 1 TU

Tdoc Limitation: 2 tdocs

Email max expectation: 2 threads

Focus on two objectives only.

### 9.1.1 Organizational

### 9.1.2 NB-IoT neighbor cell measurements and corresponding measurement triggering before RLF

Including outcome of [Post111-e][923][NBIOT R17] RLF Enhancements (Qualcomm)

[R2-2009788](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2009788.zip) Report for [Post111-e][923][NBIOT R17] RLF Enhancements (Qualcomm) Qualcomm Incorporated discussion Rel-15 NB\_IOTenh2-Core

[R2-2008937](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2008937.zip) Impact on Static devices THALES discussion

[R2-2009058](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2009058.zip) Further consideration on measurement in connected mode ZTE Corporation, Sanechips discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2009146](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2009146.zip) Discussion on the corresponding measurement before RLF Spreadtrum Communications discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2009268](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2009268.zip) Enhancements for Re-establishment time reduction Nokia, Nokia Shanghai Bell discussion Rel-17

[R2-2009731](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2009731.zip) Neighbour cell measurements in RRC\_CONNECTED Huawei, HiSilicon discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2009789](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2009789.zip) Way forward for connected mode neighbour cell measurement in NB-IoT Qualcomm Incorporated discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2009876](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2009876.zip) Neighbor cell measurements triggering before RLF Lenovo, Motorola Mobility discussion Rel-17

[R2-2010076](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2010076.zip) Reducing time taken for reestablishment procedures in NB-IoT Ericsson discussion Rel-17

[R2-2010249](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2010249.zip) Discussion on Total Interruption Time ETRI discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2010460](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2010460.zip) Measurement before radio link failure MediaTek Inc. discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

### 9.1.3 NB-IoT carrier selection based on the coverage level, and associated carrier specific configuration

[R2-2010470](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2010470.zip) Carrier selection enhancement MediaTek Inc. discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2009180](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2009180.zip) NB-IoT carrier selection and configuration based on coverage level Ericsson discussion Rel-17

[R2-2009732](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2009732.zip) Paging carrier selection based on CEL and on DRX Huawei, HiSilicon discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2009059](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2009059.zip) Further consideration on multi carriers configuration and selection ZTE Corporation, Sanechips discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2009147](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2009147.zip) Discussion on enhanced paging carrier selection and multi carrier configuration Spreadtrum Communications discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2009269](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2009269.zip) Analysis on carrier selection options for NB-IoT Nokia, Nokia Shanghai Bell discussion Rel-17

[R2-2009790](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2009790.zip) Support for NB-IoT carrier selection based on the coverage level Qualcomm Incorporated discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

R2-2010077 NB-IoT carrier selection and configuration based on coverage level Ericsson discussion Rel-17 Withdrawn