**3GPP TSG-RAN WG2 Meeting #112-e *R2-201xxxx***

**Online, 2–13 November 2020**

**Agenda item: 5.3.1**

**Source: MediaTek**

**Title: Report of [AT112-e][002][NR15] MAC I (MediaTek)**

**Document for: Discussion and Agreement**

# 1 Introduction

This is to summarize the outcome for the following email discussion in RAN2#112-e Meeting [1].

* [AT112-e][002][NR15] MAC I (MediaTek)

Treat R2-20010621, R2-2010330, R2-2010679, R2-2010680, R2-2009348, R2-2009792, R2-2009793, R2-2010156, R2-2010157, R2-2010165, R2-2010166

Intended outcome: Intermediate: Determine agreeable parts. Final: For agreeable parts, agreed CRs.

Deadline: Intermediate deadline(s) by Rapporteur, Final: Discussion stop at Wed Nov 11, 1200 UTC

The rapporteur suggests the following two phases:

* Phase 1: collect companies’ view, by Friday 2020-10-06 12:00 UTC
* Phase 2: rapporteur provide summary report and agreeable CR for review, by Monday 2020-11-09 12:00 UTC

# 2 Contact Information

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| --- | --- |
| Company | Contact: Name (E-mail) |
| MediaTek | Guanyu Lin (guanyu.lin@mediatek.com) |
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# 3 Discussion

## 3.1 Activation of CG and DRX Inactivity Timer

[R2-2010621](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2010621.zip) Activation of CG and DRX Inactivity Timer Ericsson discussion NR\_newRAT-Core

The discussion paper proposes to add the following note in clause 5.7 of TS 38.321, v 15.10.0:

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| NOTE 1: A PDCCH indicating activation of configured grant type 2 is not considered to indicate a new transmission. |

###### Q1: Companies are invited to provide comments below:

|  |  |  |
| --- | --- | --- |
| Company | Agree as is (from which release); Agree with changes; Disagree | Detailed Comments |
| MediaTek | Agree as is (Rel-15) | We support a clarification for this case. Otherwise, there is a risk of DRX unsync due to different implementation beteeen UE and gNB. |
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**Conclusion:**

**TBD**

## 3.2 Clarification on LCP restriction for configured grant type 1

[R2-2010330](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2010330.zip) Clarification on LCP restriction for configured grant type 1 MediaTek Inc. discussion Rel-15 NR\_newRAT-Core

[R2-2010679](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2010679.zip) CR on TS 38.331 for LCP restriction of configured grant type 1 MediaTek CR Rel-15 38.331 16.2.0 2272 - F NR\_newRAT-Core

[R2-2010680](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2010679.zip) CR on TS 38.331 for LCP restriction of configured grant type 1 MediaTek CR Rel-15 38.331 16.2.0 2273 - A NR\_newRAT-Core

It’s proposed to add clarification for the filed description of “***configuredGrantType1Allowed*** ” for TS 38.331 v15.11.0 as follows:

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| *LogicalChannelConfig* field descriptions |
| ***configuredGrantType1Allowed***  If present, or if the capability *LCP-restriction* is not supported, UL MAC SDUs from this logical channel can be transmitted on a configured grant type 1. Otherwise, UL MAC SUDs from this logical channel cannot be transmitted on a configured grant type 1. Corresponds to 'configuredGrantType1Allowed' in TS 38.321 [3]. |

###### Q2: Companies are invited to provide comments below:

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| --- | --- | --- |
| Company | Agree as is (which CR; from which release); Agree with changes;  To capture it in the meeting minutes;  Disagree | Detailed Comments |
| MediaTek | Agree as is (Rel-15) | The otherwise behavior (i.e. if the field *configuredGrantType1Allowed* is not present) is not specified in current RRC spec. This may cause an ambiguity whether UE is allowed to use CG type 1:   * For the other three LCP restrictions in R15 (i.e., allowedSCS-List, allowedServingCells, maxPUSCH-Duration ), “not configured” means “no restriction”. * However, the value of *configuredGrantType1Allowed is* ENUMERATED {true} (always true). So, to make this configuration useful (work as an on-off bit), UE should not be allowed to use CG type 1 if *configuredGrantType1Allowed* is not configured   To eliminate the ambiguity, we propose to update the field description for the otherwise behavior. |
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**Conclusion:**

**TBD**

## 3.3 Clarification on configuredGrantTimer

[R2-2009348](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2009348.zip) Clarification on configuredGrantTimer Nokia, Nokia Shanghai Bell, Ericsson, LG CR Rel-15 38.321 15.10.0 0926 - F NR\_newRAT-Core

It’s proposed to add the following clarification in clause 5.4.2.1 HARQ Entity of TS 38.321 v15.10.0:

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| When *configuredGrantTimer* is started or restarted by a PUSCH transmission, it shall be started at the beginning of the first symbol of the PUSCH transmission. |

###### Q3: Companies are invited to provide comments below:

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| --- | --- | --- |
| Company | Agree as is (from which release); Agree with changes; Disagree | Detailed Comments |
| MediaTek | Agree as is (Rel-15) | It makes sense to clarify the detailed timing to start the configruredGrantTimer. |
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**Conclusion:**

**TBD**

## 3.4 Clarification on configured grant (re-)initialization

[R2-2009792](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2009792.zip) Clarification on configured grant (re-)initialization Nokia, Nokia Shanghai Bell CR Rel-15 38.321 15.10.0 0941 - F NR\_newRAT-Core

[R2-2009793](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2009793.zip) Clarification on configured grant (re-)initialization Nokia, Nokia Shanghai Bell CR Rel-16 38.321 16.2.1 0942 - A NR\_newRAT-Core

Moved from 6.1.3

Summary of change:

* Clarify in section 5.8 that the configured downlink assignments or uplink grants are configured for a BWP of a Serving Cell.
* Configured downlink assignment and uplink grant related actions are removed from section 5.9.

###### Q4: Companies are invited to provide comments below:

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| --- | --- | --- |
| Company | Agree as is (from which release); Agree with changes; Disagree | Detailed Comments |
| MediaTek | Agree the first change  Disagree with the second change | We think the first change is correct. For the second change, we think the description in current spec is useful from clarity perspective and thus can be kept as it is. |
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**Conclusion:**

**TBD**

## 3.5 Clarification of timer value zero interpretation in MAC

[R2-2010165](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2010165.zip) Clarification of timer value zero interpretation in MAC Ericsson, Samsung CR Rel-15 38.321 15.10.0 0968 - F NR\_newRAT-Core

[R2-2010166](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2010166.zip) Clarification of timer value zero interpretation in MAC Ericsson, Samsung CR Rel-16 38.321 16.2.1 0969 - A NR\_newRAT-Core

It’s proposed to clarify in clause 3.1 of TS 38.321 v15.10.0 that a timer value of zero means the timer shall be started and immediately expire.

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| NOTE: A timer is running once it is started, until it is stopped or until it expires; otherwise it is not running. A timer can be started if it is not running or restarted if it is running. A Timer is always started or restarted from its initial value. The duration of a timer is not updated until it is stopped or expires (e.g. due to BWP switching). When the MAC entity applies zero value for a timer, the timer shall be started and immediately expire unless explicitly stated otherwise. |

###### Q5: Companies are invited to provide comments below:

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| --- | --- | --- |
| Company | Agree as is (from which release); Agree with changes; Disagree | Detailed Comments |
| MediaTek | Agree as is (Rel-15) | We are fine with the change which avoids the risk of wrong timer implementation. |
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**Conclusion:**

**TBD**

## 3.6 Recommended bit rate query handling at MAC Reset

[R2-2010156](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2010156.zip) Recommended bit rate query handling at MAC Reset Ericsson CR Rel-16 38.321 16.2.1 0964 - F NR\_newRAT-Core

[R2-2010157](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2010157.zip) Recommended bit rate query handling at MAC Reset Ericsson CR Rel-15 38.321 15.10.0 0965 - F NR\_newRAT-Core

It’s proposed to include the cancellation of a triggered Recommended bit rate query in the list of UE actions at MAC reset.

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| 5.12 MAC Reset If a reset of the MAC entity is requested by upper layers, the MAC entity shall:  1> …   1. cancel, if any, triggered Recommended bit rate query procedure;   1> … |

###### Q6: Companies are invited to provide comments below:

|  |  |  |
| --- | --- | --- |
| Company | Agree as is (from which release); Agree with changes; Disagree | Detailed Comments |
| MediaTek | Agree as is (Rel-15) | The change makes sense – UE should cancel triggered procedures upon MAC reset. |
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**Conclusion:**

**TBD**

# 4 Conclusion

**TBD**

# 5 References

[1] RAN2 112-e Chairman Notes 2020-11-02 0800 UTC.docx