**3GPP TSG-RAN WG2 Meeting #109-e** **R2-2002141**

**eMeeting, 24th February - 06th March 2020**

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| *CR-Form-v11.4* |
| **CHANGE REQUEST** |
|  |
|  | **38.331** | **CR** | **1450** | **rev** | **1** | **Current version:** | **15.8.0** |  |
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| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* |
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| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network | **X** | Core Network |  |

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| ***Title:***  | Correction on reporting of uplink TX direct current |
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| ***Source to WG:*** | MediaTek Inc. |
| ***Source to TSG:*** | R2 |
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| ***Work item code:*** | NR\_newRAT-Core |  | ***Date:*** | 2020/02/24 |
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| ***Category:*** | F |  | ***Release:*** | Rel-15 |
|  | *Use one of the following categories:****F*** *(correction)****A*** *(mirror corresponding to a change in an earlier release)****B*** *(addition of feature),* ***C*** *(functional modification of feature)****D*** *(editorial modification)*Detailed explanations of the above categories canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)Rel-12 (Release 12)**Rel-13 (Release 13)Rel-14 (Release 14)Rel-15 (Release 15)Rel-16 (Release 16)* |
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| ***Reason for change:*** | The current text for reporting UL TX direct current is specified as following:2> if the *RRCReconfiguration* includes the *masterCellGroup* containing the *reportUplinkTxDirectCurrent*; or2> if the *RRCReconfiguration* includes the *secondaryCellGroup* containing the *reportUplinkTxDirectCurrent*: 3> include the *uplinkTxDirectCurrentList* for each serving cell with UL; 3> if UE is configured with SUL carrier: 4> include uplinkDirectCurrentBWP-SUL for each serving cell with SUL It seems that, in MR-DC, the UE shall report the TX current for **all MCG and SCG serving cells** no matter the enquiry is from MN or SN. This is incorrect in (NG)EN-DC and NE-DC, as the TX current reporting is for NR serving cell, not for LTE serving cell. It is also strange in NR-DC, the MN or SN may receive this reporting while it does not send the enquiry. Note that the above text is executed for both inner and outer *RRCReconfigurationComplete* in NR-DC. The UE will include all the information in both *RRCReconfigurationComplete* if either MN or SN send the enquiry. We believe that this is not the intended behavior. We propose to clarify that the UE including the TX current reporting only for the corresponding MCG or SCG serving cells.In addition, the description about “if UE is configured with SUL carrier” is unclear. The SUL configuration is per cell. We think that correct behaviour is that the UE including the SUL TX current reporting for a cell if the cell is configured with SUL. This also need to be clarified. |
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| ***Summary of change:*** | 1. In 5.3.5.3, for the content in RRC Reconfiguration Complete, clarify that the UE only reporting TX current for corresponding MCG or SCG serving cells depending on whether the enquiry (*reportUplinkTxDirectCurrent*) is included in master cell group or secondary cell group. In addition, clarify that the TX current reporting for SUL carrier is based on the per cell configuration.
2. In 5.3.5.3, for the content in RRC Resume Complete, clarify that the TX current reporting for SUL carrier is based on the per cell configuration.

**Impact analysis**Impacted 5G architecture options: Standalone, EN-DC, NGEN-DC, NE-DC, NR-DC Impacted functionality: Uplink TX direct current reporting in RRC Reconfiguration Complete and Resume CompleteInter-operability:If the UE implements the CR but the network does not or vice-versa, the UE and NW may have different understanding on whehter the TX dirrect current reporting of a serving cell is included or not. The consequences if not approved remain.  |
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| ***Consequences if not approved:*** | In (NG)EN-DC or NE-DC, the UE is unable to report UL TX current for LTE serving cell but the specificaion requries UE to do this. In NR-DC, the NW may receive unexpected TX current reporting in the Reconfiguration Complete message.  |
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| ***Clauses affected:*** | 5.3.5.3, 5.3.13.4 |
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|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **x** |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** |  | **x** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **x** |  O&M Specifications | TS/TR ... CR ...  |
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| ***Other comments:*** |  |

1st change

#### 5.3.5.3 Reception of an *RRCReconfiguration* by the UE

<Skip unrelated Part>

1> set the content of the *RRCReconfigurationComplete* message as follows:

2> if the *RRCReconfiguration* includes the *masterCellGroup* containing the *reportUplinkTxDirectCurrent*:

3> include the *uplinkTxDirectCurrentList* for each MCG serving cell with UL;

3> include *uplinkDirectCurrentBWP-SUL* for each MCG serving cell configured with SUL carrier, if any, within the *uplinkTxDirectCurrentList*;

2> if the *RRCReconfiguration* includes the *secondaryCellGroup* containing the *reportUplinkTxDirectCurrent*:

3> include the *uplinkTxDirectCurrentList* for each SCG serving cell with UL;

3> include *uplinkDirectCurrentBWP-SUL* for each SCG serving cell configured with SUL carrier, if any, within the *uplinkTxDirectCurrentList*;

2> if the *RRCReconfiguration* message includes the *mrdc-SecondaryCellGroupConfig* with *mrdc-SecondaryCellGroup* set to *eutra-SCG*:

3> include in the *eutra-SCG-Response* the E-UTRA *RRCConnectionReconfigurationComplete* message in accordance with TS 36.331 [10] clause 5.3.5.3;

2> if the *RRCReconfiguration* message includes the *mrdc-SecondaryCellGroupConfig* with *mrdc-SecondaryCellGroup* set to *nr-SCG*:

3> include in the *nr-SCG-Response* the *RRCReconfigurationComplete* message;

<Skip unrelated Part>

2nd change

#### 5.3.13.4 Reception of the *RRCResume* by the UE

<Skip unrelated Part>

1> set the content of the of *RRCResumeComplete* message as follows:

2> if the upper layer provides NAS PDU, set the *dedicatedNAS-Message* to include the information received from upper layers;

2> if the upper layer provides a PLMN, set the *selectedPLMN-Identity* to PLMN selected by upper layers (TS 24.501 [23]) from the PLMN(s) included in the *plmn-IdentityList* in *SIB1;*

2> if the *masterCellGroup* contains the *reportUplinkTxDirectCurrent*:

3> include the *uplinkTxDirectCurrentList* for each MCG serving cell with UL;

3> include *uplinkDirectCurrentBWP-SUL* for each MCG serving cell configured with SUL carrier, if any, within the *uplinkTxDirectCurrentList*;

1> submit the *RRCResumeComplete* message to lower layers for transmission;

1> the procedure ends.