**3GPP T****SG-RAN WG3 Meeting #108-e R3-204423**

**Online, 1st - 10th June 2020**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  |  | **CR** | **0116** | **rev** | **4** | **Current version:** | **16.1.0** |  |
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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 |  | Radio Access Network | **X** | Core Network |  |

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| ***Title:***  | s |
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| ***Source to WG:*** | CMCC, Huawei, ZTE, Nokia, Nokia Shanghai Bell，CATT, Samsung, Ericsson, Qualcomm Incorporated, LG Electronics, NTT DOCOMO |
| ***Source to TSG:*** | RAN3 |
|  |  |
| ***Work item code:*** | NR\_SON\_MDT-Core |  | ***Date:*** | 2020-06-15 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***Release:*** | Rel-16 |
|  | *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:*** | Addition of SON features |
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| ***Summary of change:*** | Add RACH optimisation function and MRO procedure in CU-DU split architecture |
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| ***Consequences if not approved:*** | The related description of RACH optimisation function and MRO procedure in CU-DU split architecture is missing. |
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| ***Clauses affected:*** | 7.X, 8.X |
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|  | **Y** | **N** |  |  |
| ***Other specs*** | **X** |  |  Other core specifications  | TS 38.473 CR 0441 |
| ***affected:*** |  | **X** |  Test specifications |  TS 38.300 CR |
| ***(show related CRs)*** |  | **X** |  O&M Specifications |  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** | Rev 1: Add description of “a limited set of” neighbour cell’s PRACH configurationsRev 2: resubmitted to RAN3#107bis-eRev 3: resubmitted to RAN3#108-eRev 4: capture the agreed TP in R3-204319 and add more co-source companies |

*Start of the first change*

7.X RACH Optimisation Function

The RACH Optimization Function in non-split gNB case is specified in TS 38.300 [2].

In case of split gNB architecture, RACH configuration conflict detection and resolution function is located at the gNB-DU. To perform RACH optimisation at gNB-DU, gNB-CU sends the RACH report reported by the UE to gNB-DU via F1AP signalling. The gNB-DU signals the PRACH configuration per-cell to gNB-CU. The gNB-CU may forward a limited set of neighbour cell’s PRACH configurations received from neighbour gNB-CU to the gNB-DU to resolve the configuration conflict.

*End of first change*

*Start of the second change*

## 8.x Self-optimisation

## 8.x.y Overall procedures for MRO

The following clauses describe the overall procedures for MRO involving F1.

### 8.x.y.1 Signalling of RLF information from gNB-CU to gNB-DU

The signalling flow for signalling of RLF information from gNB-CU to gNB-DU is shown in Figure 8.y.1-1, where the example where NG-RAN nodes exchange the RLF Report via the Xn: FAILURE INDICATION message has been considered.



Figure 8.x.y.1-1 Example of signalling of RLF information from gNB-CU to gNB-DU in NG RAN

1. A UE with a logged RLF Report connects to a cell in gNB2 and it signals the RLF Report to gNB2 by means of the RRC UE Information Request/Response procedures.

2. The gNB2 sends an Xn: Failure Indication to gNB1-CU where the UE may have previously been connected prior to the connection failure. This includes also the RLF Report.

3. The gNB1-CU sends the F1: Access and Mobility Indication message to the gNB1-DU, including the RLF Report.

It is also possible for the gNB-CU receiving the RLF Report from the UE to signal it directly to the gNB-DU by means of the F1: Access and Mobility Indication procedure.

*End of second change*