**3GPP TSG-RAN3 Meeting #107bis-e *R3-20xxx***

**E-Meeting**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.470** | **CR** | **0061** | **rev** | **6** | **Current version:** | **16.1.0** |  |
|  | | | | | | | | |
| *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:*** | Positioning support over F1AP | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | RAN3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_pos-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 can be 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)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Introduction of support for positioning | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Introduction of the Assistance Information Control and Assistance Information Feedback procedures (both Class 2)  Introduction of positioning measurement procedures | | | | | | | | |
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| ***Consequences if not approved:*** | | No support for positioning over F1AP | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.2.2, 5.2.X, 6.1.X | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS/TR ... CR ... . TBD.. | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | Rev1 BL CR submission based on endorsed R3-197693 at RAN3#63  Rev2 Inclusion of agreed R3-201021 and remove change on change  Rev3 update against last version of specifications  Rev4 Inclusion of agreed R3-202777at RAN3#107bises, remove change on change, tracking change anonymisation  Rev5 correction of typos remove change on change in last line  Rev6: merge R3-204196 | | | | | | | | |

<<<<<<<<<<<<<<<<<<<< Changes Begin >>>>>>>>>>>>>>>>>>>>

### 5.2.2 System Information management function

Scheduling of system broadcast information is carried out in the gNB-DU. The gNB-DU is responsible for transmitting the system information according to the scheduling parameters available.

The gNB-DU is responsible for the encoding of NR-MIB. In case broadcast of SIB1 and other SI messages is needed, the gNB-DU is responsible for the encoding of SIB1 and the gNB-CU is responsible for the encoding of other SI messages. The gNB-DU may re-encode SIB9.

The gNB-CU is responsible for receiving the positioning assistance information from LMF, e.g the positioning related SIBs. The gNB-CU notifies gNB-DU about the SIBs, and the gNB-DU signals them directly.

To support Msg3 based on-demand SI as described in TS 38.331 [11], the gNB-CU can confirm the received SI request from the UE by including the UE identity, and command the gNB-DU to broadcast the requested other SIs.

<<<<<<<<<<<<<<<<<<<< Changes End >>>>>>>>>>>>>>>>>>>>

### 5.2.X Positioning function

This function allows to transfer location management messages between gNB-CU and gNB-DU. With this function, gNB-CU request TRP information from gNB-DU, and gNB-DU response to gNB-CU with the TRP information. With this function, gNB-CU request positioning measurements from gNB-DU, and gNB-DU response to gNB-CU with the positioning measurements.

The function allows to transfer the positioning assistance data from gNB-CU to gNB-DU. The gNB-DU is responsible for broadcasting the positioning assistance data according to the scheduling parameters available.

<<<<<<<<<<<<<<<<<<<< Changes End >>>>>>>>>>>>>>>>>>>>

### 6.1.x Positioning procedures

The F1 Positioning procedures are listed below:

* Positioning Measurement procedure;
* TRP Information Exchange procedure;
* Positioning Information Exchange procedure;
* Positioning Assistance Information Control procedure;
* Positioning Assistance Information Feedback procedure;
* Positioning Measurement Report procedure;
* Positioning Measurement Modification procedure;
* Positioning Measurement Termination procedure;
* Positioning Measurement Failure Indication Procedure.

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