**3GPP TSG-RAN WG3 Meeting #115-e *R3-222937***

**21 February – 3 March 2022**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **CR** | **0079** | **rev** | **3** | **Current version:** | **16.5.0** |  |
|  | | | | | | | | |
| *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:*** | Introduction of release 17 positioning enhancements | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | , Ericsson, Huawei, Nokia, Nokia Shanghai Bell | | | | | | | | | |
| ***Source to TSG:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_pos\_enh | | | | |  | ***Date:*** | | | 2022-02-17 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | |  |
|  | *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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | New positioning procedures are added to F1AP (PRS Configuration Exchange, Measurement Preconfiguration, and Measurement Activation). | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add the PRS Configuration Exchange, Measurement Preconfiguration, and Measurement Activation procedures to the list of Positioning procedures, and associated functionality to the Positioning function section. | | | | | | | | |
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| ***Consequences if not approved:*** | | Misaligment with TS 38.473 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.2.11, 6.1.11 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS38.455 CR#0037, TS38.473 CR#0803, TS38.423 CR#0748, TS38.413 CR#0754, | | |
| ***affected:*** | |  | **x** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **x** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | r3: includes TP from R3#115-3 (R3-222790) | | | | | | | | |

### 5.2.11 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.

The function allows the gNB-CU to request the gNB-DU to configure PRS transmissions.

The function allows the gNB-CU to request the gNB-DU to configure measurement gap or PRS processing window.

The function allows the gNB-CU to request the gNB-DU to activate preconfigured measurement gaps.

**>>> NEXT CHANGE <<<**

### 6.1.11 Positioning procedures

The F1 Positioning procedures are listed below:

* Positioning Assistance Information Control procedure;
* Positioning Assistance Information Feedback procedure;
* Positioning Measurement procedure;
* Positioning Measurement Report procedure;
* Positioning Measurement Abort procedure;
* Positioning Measurement Failure Indication procedure;
* Positioning Measurement Update procedure;
* TRP Information Exchange procedure;
* Positioning Information Update;
* Positioning Information Exchange procedure;
* Positioning Activation procedure;
* Positioning Deactivation procedure;
* E-CID Measurement Initiation;
* E-CID Measurement Failure Indication procedure;
* E-CID Measurement Report procedure;
* E-CID Measurement Termination procedure;
* PRS Configuration Exchange procedure;
* Measurement Preconfiguration;
* Measurement Activation.