**3GPP TSG-RAN WG2 Meeting #121-bis-e*****R2-230xxxx***

**Online, 17th – 26th April, 2023**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **38.305** | **CR** | **0123** | **rev** | **1** | **Current version:** | **17.4.0** |  |
|  |
| *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 | **X** | Radio Access Network | **X**  | Core Network | **X** |

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| ***Title:***  | Miscellaneous corrections on 38.305 |
|  |  |
| ***Source to WG:*** | CATT |
| ***Source to TSG:*** | R2 |
|  |  |
| ***Work item code:*** | NR\_pos\_enh-Core |  | ***Date:*** | 2023-04-06 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** | Rel-17 |
|  | *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)s*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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
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| ***Reason for change:*** | 1. For DL-TDOA positioning, UE can request to activate pre-configured measurement gaps, which is missed in the current spec.2. Wrong figure number in section 8.9.3.3.1.3. Irregular writing of “step 1” in section 8.9.3.3.1. |
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| ***Summary of change:*** | 1. Add the sentence “The UE may also request to activate pre-configured measurement gaps as described in clause 7.7.2.” in section 8.12.1.2. Modify the figure number 8.9.3.3-1 as 8.9.3.3.1-1.3. In section 8.9.3.3.1, modify the “step 1” as “step (1)”.**Impact analysis:**Impacted 5G architecture options:SA, NSAImpacted functionality:Pre-configured Measurement GapInter-operability:1. If the UE is implemented according to this CR but the network is not, there will be no inter-operability issue. 2. If the network is implemented according to this CR but the UE is not, there will be no inter-operability issue. |
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| ***Consequences if not approved:*** | The stage 2 description is unclear. |
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| ***Clauses affected:*** | 8.9.3.3.1, 8.12.1 |
|  |  |
|  | **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 ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** | Revision of R2-2302637. |

*Start of change*

## 8.9 NR Enhanced cell ID positioning methods

##### 8.9.3.3.1 LMF-initiated Location Information Transfer from UE

Figure 8.9.3.3.1-1 shows the Location Information Transfer operations for the NR E-CID method from UE when the procedure is initiated by the LMF.



Figure 8.9.3.3.1-1: LMF-initiated Location Information Transfer Procedure.

(1) The LMF sends a LPP Request Location Information message to the UE for invocation of NR E-CID positioning. This request includes the NR E-CID measurements requested by the LMF and supported by the UE as listed in Table 8.9.2.2-1 together with a required response time.

(2) The UE sends an LPP Provide Location Information message to the LMF and reports the requested measurements that are available in the UE before the Response Time provided in step (1) elapsed. If the requested measurements are not available, or if the Response Time provided in step (1) elapsed before any of the requested measurements have been obtained, the UE returns any information that can be provided in an LPP message of type Provide Location Information which includes a cause indication for the not provided location information.

*Next change*

## 8.12 DL-TDOA positioning

### 8.12.1 General

In the DL-TDOA positioning method, the UE position is estimated based on DL RSTD (and optionally DL-PRS-RSRP and/or DL-PRS-RSRPP) measurements taken at the UE of downlink radio signals from multiple NR TRPs, along with knowledge of the geographical coordinates of the TRPs and their relative downlink timing.

The UE while connected to a gNB may require measurement gaps to perform the DL-TDOA measurements from NR TRPs. The UE may request measurement gaps from a gNB using the procedure described in clause 7.4.1.1. The UE may also request to activate pre-configured measurement gaps as described in clause 7.7.2.

The specific positioning techniques used to estimate the UE's location from this information are beyond the scope of this specification.

*End of change*