**3GPP TSG-RAN2 Meeting #123-bisR2-231xxxx**

**Xiamen, China, 9 - 13 Oct, 2023**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **36.321** | **CR** | **xxxx** | **rev** | **-** | **Current version:** | **17.6.0** |  |
|  | | | | | | | | |
| *For* [***HELP***](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 |  | Core Network |  |

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| ***Title:*** | Correction to 36.321 on Koffset handling during handover | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, Ericsson, HiSilicon | | | | | | | | | |
| ***Source to TSG:*** | R2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | LTE\_NBIOT\_eMTC\_NTN | | | | |  | ***Date:*** | | | 2023-10-10 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror 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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
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| ***Reason for change:*** | | Koffset comprises of two parts: the first part is cell specific Koffset, which is delivered in SIB or in handover command; the second part is UE specific Koffset, which is provided by the Differential Koffset MAC CE.  Currently during handover, only the cell specific Koffset of the target cell can be configured in handover command. Therefore, there will be some ambiguity on what Koffset should be used during the period between receiving HO command and receiving the Differential Koffset MAC CE from the target cell. | | | | | | | | |
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| ***Summary of change:*** | | Specify that the UE’s differential Koffset from source cell is not used after handover.  **Impact analysis**  Impacted functionality:  IoT NTN  Inter-operability issues:  If the UE is implemented according to the CR while the network is not, UE and network may have different understandings on the Koffset used by UE during handover.  If the network is implemented according to the CR while the UE is not, UE and network may have different understandings on the Koffset used by UE during handover. | | | | | | | | |
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| ***Consequences if not approved:*** | | It is not clear how UE should set the Koffset during handover. | | | | | | | | |
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| ***Clauses affected:*** | | 5.26 | | | | | | | | |
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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 ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

<Start of Change>

5.26 Update of Differential Koffset

The network may provide and update the Differential Koffset of a Serving Cell in a non-terrestrial network by sending the Differential Koffset MAC CE described in clause 6.1.3.21. The Differential Koffset is initially zero after a handover.

The MAC entity shall:

- if the MAC entity receives a Differential Koffset MAC CE on a Serving Cell:

- indicate to lower layers the information regarding the Differential Koffset MAC CE.

<End of Change>