**SA WG2 Meeting SA2#162S2-2405122**

**15-19, April 2024, Changsha, P. R. China revision of S2-2404315**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **401** | **CR** | **3773** | **rev** | **1** | **Current version:** | **17.10.0** |  |
|  | | | | | | | | |
| *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 |  | Core Network | **X** |

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| ***Title:*** | Support of TAU in Cellular IoT | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | OPPO | | | | | | | | | |
| ***Source to TSG:*** | SA2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | IoT\_SAT\_ARCH\_EPS | | | | |  | ***Date:*** | | | 2024-02-08 |
|  |  | | | |  | |  | | |  |
| ***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)*  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)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | With the introduction of satellite support for Cellular IoT, a satellite E-UTRA cell may broadcast multiple TAIs for the selected PLMN. TS 23.401 in clause 4.13.6, Support of Tracking Area Update, specifies that “when indicating a last visited TAI in an Attach Request or a TAU Request, a UE may indicate any TAI supported in the last visited cell for that RPLMN or PLMN equivalent to the RPLMN”  This statement is not aligned with stage 3 spec TS 24.301. In Clause 4.11.3 of TS 24.301, rather than “any TAI”, a list of criteria is provided for handling multiple tracking area codes to support Satellite access for CIoT. | | | | | | | | |
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| ***Summary of change:*** | | When indicating a last visited TAI in an Attach Request or a TAU Request, a UE may indicate the last selected TAI supported in the last visited cell for that RPLMN or PLMN equivalent to the RPLMN, as specified in clause 4.11.3 of TS 24.301. | | | | | | | | |
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| ***Consequences if not approved:*** | | The different specifications in stage 2 and stage 3 could result in varied implementations, leading to inconsistent UE behavior. UEs following SA2 or CT1 specs could result in different last visited TAIs, thereby preventing the network from making full use of the provided last visited TAI. | | | | | | | | |
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| ***Clauses affected:*** | | 4.13.6 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 Changes

### 4.13.6 Support of Tracking Area Update

A moving cell for NB-IoT, LTE-M or WB-E-UTRAN satellite access may indicate support for one or more Tracking Areas Codes (TACs) for each PLMN (see clause 4.13.7). A UE that is registered with a PLMN may access a cell and does not need to perform a Tracking Area Update procedure for mobility reasons as long as at least one supported TAC for the RPLMN or equivalent to the RPLMN indicated in the cell is part of the UE's Tracking Area List. A UE shall perform a Tracking Area Update procedure when entering a cell where none of the supported TACs for the RPLMN or equivalent to the RPLMN indicated in the cell are part of the UE's Tracking Area List.

When indicating a last visited TAI in an Attach Request or a TAU Request, a UE shall indicate the last selected TAI supported in the last visited cell for that RPLMN or PLMN equivalent to the RPLMN, as specified in clause 4.11.3 of TS 24.301[46].

End of Changes