**3GPP TSG-WG SA2 Meeting #170S2-250XXXX**

**Goteborg, Sweden, 25 – 29 August 2025** **(revision of S2-250xxxx)**

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  |  | **CR** | **XXXX** | **rev** | **-** | **Current version:** |  |  |
|  | | | | | | | | |
| *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 |  | Core Network | **X** |

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| ***Title:*** | Clarification on the AIoT device profile data in the UDR | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | LG Electronics | | | | | | | | | |
| ***Source to TSG:*** | SA WG2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | AmbientIoT-ARC | | | | |  | ***Date:*** | | | 2025-08-XX |
|  |  | | | |  | |  | | |  |
| ***Category:*** | F |  | | | | | ***Release:*** | | | Rel-19 |
|  | *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-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | As per the conclusion in clause 8.2.2 of TR 23.700-13, the AIoT device profile data can be stored in the ADM and possibly together in the UDR as the following.  *When the AIoT device profile data is managed by the 5GC, it is stored in the ADM (Ambient IoT Data Management), possibly together with UDR, which exclusively supports AIoT devices.*  The LS from CT4 on Using Nudr-dr service for accessing AIoT device profile data (C4-252411/S2-2506128) requests for feedback and update for the following agreement:  *In CT4#129 meeting, CT4 has discussed this topic and agreed the following:*  *1) Nudr\_DR service is proposed to be used for accessing AIoT device profile data*  *2) a new TS will be created for the data modelling of AIoT device profile data.*  Based on above, it is proposed to clarify that the Nudr\_DR service is used for accessing AIoT device profile data stored in the UDR by the ADM. | | | | | | | | |
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| ***Summary of change:*** | | §5.5  - Add description in case the AIoT device profile data is stored in the UDR, it is managed by the ADM using Nudr\_DR service. | | | | | | | | |
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| ***Consequences if not approved:*** | | Incomplete specification how the AIoT device profile data stored in the UDR is managed. | | | | | | | | |
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| ***Clauses affected:*** | | 5.5 | | | | | | | | |
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|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS 23.502 CR YYYY | | |
| ***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 1st Change \* \* \* \*

## 5.5 AIoT Device Profile Management

The ADM may hold operator’s subscription data for the AIoT Device used in the network. If the AIoT Device is managed by the network, then the profile data for an AIoT Device is required in the network, otherwise the corresponding profile data (e.g. AIoT Device Permanent ID or credentials) is stored external to the network.

The AIoT Device Permanent ID is used by the AIOTF together with local configuration, 3rd party related context to locate the entity which stores the profile data of an AIoT Device.

In case the AIoT Device is managed by the network, the AIOTF checks whether the AIoT Device Permanent ID from AIoT Device has the profile data in the network and retrieves the profile data. The profile data for AIoT Device is different with UE subscription data as defined in clause 5.2.3 of TS 23.502 [4], it is stored in the ADM network entity that exclusively supports management of AIoT Device’s profile data which may also be stored in the UDR and managed by the ADM using Nudr\_DataManagement service as specified in clause 5.2.12 of TS 23.502 [4]. The AIoT Device Permanent ID is the primary key for AIoT device profile data in the ADM and UDR.

The table 5.5-1 below describes information storage structures for AIoT device profile data.

Table 5.5-1: AIoT Device Profile Data

|  |  |
| --- | --- |
| Field | Description |
| AIoT Device Permanent ID | Uniquely identifies the AIoT Device. |
| Last known AIOTF information | Indicate the last known AIOTF that serves the AIoT device, or unknown |

NOTE: Security materials and security mechanism involving ADM are specified in TS 33.369 [9].

\* \* \* \* End of Changes \* \* \* \*