**3GPP TSG-WG SA2 Meeting #170S2-2507678**

**Goteborg, Sweden, 25 – 29 August 2025** **(revision of S2-2507052)**

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| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
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|  |  | **CR** | **5556** | **rev** | **1** | **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:***  | Reference to the AIoT data in the UDR |
|  |  |
| ***Source to WG:*** | LG Electronics, Ericsson |
| ***Source to TSG:*** | SA WG2 |
|  |  |
| ***Work item code:*** | AmbientIoT-ARC |  | ***Date:*** | 2025-08-15 |
|  |  |  |  |  |
| ***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 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-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19) Rel-20 (Release 20)* |
|  |  |
| ***Reason for change:*** | 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.*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.*Also, the AF authorization data can be stored in the UDR and managed by the ADM. |
|  |  |
| ***Summary of change:*** | §2 - Add reference in the specification for TS 23.369 (Architecture support for Ambient power-enabled Internet of Things).§5.2.12.1 - ADM is added to the UDR service consumer for the management of the AIoT Data.§5.2.12.2.1 - Add reference to the TS 23.369 for AIoT Data managed by the ADM. |
|  |  |
| ***Consequences if not approved:*** | Incomplete specification how the AIoT device profile data is stored in the UDR is managed by the ADM. |
|  |  |
| ***Clauses affected:*** | 2, 5.2.12.1, 5.2.12.2.1 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  | TS 23.369 CR 0010, TS 23.501 CR 6409 |
| ***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 \* \* \* \*

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 23.501: "System Architecture for the 5G System; Stage 2".

[3] IETF RFC 7296: "Internet Key Exchange Protocol Version 2 (IKEv2)".

[4] Void.

[5] Void.

[6] IETF RFC 4861: "Neighbor Discovery for IP version 6 (IPv6)".

[7] 3GPP TS 23.040: "Technical realization of the Short Message Service (SMS)".

[8] IETF RFC 4862: "IPv6 Stateless Address Autoconfiguration".

[9] 3GPP TS 38.300: "NR and NG-RAN Overall Description; Stage 2".

[10] 3GPP TS 38.413: "NG-RAN; NG Application Protocol (NGAP)".

[11] Void.

[12] 3GPP TS 38.331: "NR; Radio Resource Control (RRC); Protocol Specification".

[13] 3GPP TS 23.401: "General Packet Radio Service (GPRS) enhancements for Evolved Universal Terrestrial Radio Access Network (E-UTRAN) access".

[14] Void.

[15] 3GPP TS 33.501: "Security Architecture and Procedures for 5G System".

[16] 3GPP TS 36.331: "Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification".

[17] 3GPP TS 29.500: "5G System; Technical Realization of Service Based Architecture; Stage 3".

[18] 3GPP TS 29.518: "5G System; Access and Mobility Management Services; Stage 3".

[19] Void.

[20] 3GPP TS 23.503: "Policy and Charging Control Framework for the 5G System ".

[21] IETF RFC 4191: "Default Router Preferences and More-Specific Routes".

[22] 3GPP TS 23.122: "Non-Access-Stratum (NAS) functions related to Mobile Station in idle mode".

[23] 3GPP TS 23.682: "Architecture enhancements to facilitate communications with packet data networks and applications".

[24] 3GPP TS 23.203: "Policy and charging control architecture".

[25] 3GPP TS 24.501: "Non-Access-Stratum (NAS) protocol for 5G System (5GS); Stage 3".

[26] 3GPP TS 23.402: "Architecture enhancements for non-3GPP accesses".

[27] Void.

[28] 3GPP TS 23.167: "IP Multimedia Subsystem (IMS) emergency sessions".

[29] Void.

[30] Void.

[31] Void.

[32] 3GPP TS 29.507: "Access and Mobility Policy Control Service; Stage 3".

[33] 3GPP TS 23.003: "Numbering, Addressing and Identification".

[34] Void.

[35] 3GPP TS 23.251: "Network sharing; Architecture and functional description".

[36] 3GPP TS 29.502: "5G System; Session Management Services; Stage 3".

[37] 3GPP TS 29.510: "5G System; Network function repository services; Stage 3".

[38] 3GPP TS 23.380: "IMS Restoration Procedures".

[39] 3GPP TS 32.421: "Telecommunication management; Subscriber and equipment trace; Trace concepts and requirements".

[40] IETF RFC 4555: "IKEv2 Mobility and Multihoming Protocol (MOBIKE)".

[41] 3GPP TS 24.502: "Access to the 3GPP 5G Core Network (5GCN) via Non-3GPP Access Networks (N3AN); Stage 3".

[42] 3GPP TS 32.290: "Services, operations and procedures of charging using Service Based Interface (SBI)".

[43] 3GPP TS 36.304: "Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode".

[44] 3GPP TS 38.304: "NR; User Equipment (UE) procedures in idle mode".

[45] 3GPP TS 32.255: "5G system; 5G data connectivity domain charging; Stage 2".

[46] 3GPP TS 36.300: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2".

[47] 3GPP TS 29.513: "5G System; Policy and Charging Control signalling flows and QoS parameter mapping; Stage 3".

[48] IEEE Std 802.11-2016 (Revision of IEEE Std 802.11-2012): "IEEE Standard for Information technology - Telecommunications and information exchange between systems Local and metropolitan area networks - Specific requirements - Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications".

[49] IETF RFC 2410: "The NULL Encryption Algorithm and its use with IPsec".

[50] 3GPP TS 23.288: "Architecture enhancements for 5G System (5GS) to support network data analytics services; Stage 2".

[51] 3GPP TS 23.273: "5G System (5GS) Location Services (LCS); Stage 2".

[52] 3GPP TS 29.503: "5G System; Unified Data Management Services; Stage 3".

[53] 3GPP TS 23.316: "Wireless and wireline convergence access support for the 5G System (5GS)".

[54] 3GPP TS 23.222: "Functional architecture and information flows to support Common API Framework for 3GPP Northbound APIs; Stage 2".

[55] 3GPP TS 23.228: "IP Multimedia Subsystem (IMS); Stage 2".

[56] 3GPP TS 36.321: "Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification".

[57] 3GPP TS 29.512: "5G System; Session Management Policy Control Service; Stage 3".

[58] 3GPP TS 29.525: "5G System; UE Policy Control Service; Stage 3".

[59] IETF RFC 6696: "EAP Extensions for the EAP Re-authentication Protocol (ERP)", July 2012.

[60] IETF RFC 5295: "Specification for the Derivation of Root Keys from an Extended Master Session Key (EMSK)", Aug. 2008.

[61] 3GPP TS 23.272: "Circuit Switched (CS) fallback in Evolved Packet System (EPS); Stage 2".

[62] 3GPP TS 29.501: "5G System; Principles and Guidelines for Services Definition; Stage 3".

[63] 3GPP TS 29.561: "5G System; Interworking between 5G Network and external Data Networks; Stage 3".

[64] 3GPP TS 29.413: "Application of the NG Application Protocol (NGAP) to non-3GPP access".

[65] Void.

[66] IEEE Std 802.1Q-2022: "IEEE Standard for Local and Metropolitan Area Networks-Bridges and Bridged Networks".

[67] Void.

[68] 3GPP TS 23.632: "User Data Interworking, Coexistence and Migration".

[69] 3GPP TS 29.244: "Interface between the Control Plane and the User Plane nodes".

[70] 3GPP TS 29.571: "5G System; Common Data Types for Service Based Interfaces; Stage 3".

[71] 3GPP TS 32.256: "Charging Management; 5G connection and mobility domain charging; Stage 2".

[72] 3GPP TS 38.423: "NG-RAN; Xn Application Protocol (XnAP)".

[73] 3GPP TS 23.287: "Architecture enhancements for 5G System (5GS) to support Vehicle-to-Everything (V2X) services".

[74] 3GPP TS 23.548: "5G System Enhancements for Edge Computing; Stage 2".

[75] IEEE Std 802.1AS-2020: "IEEE Standard for Local and metropolitan area networks--Timing and Synchronization for Time-Sensitive Applications".

[76] IEEE Std 1588-2019: "IEEE Standard for a Precision Clock Synchronization Protocol for Networked Measurement and Control".

[77] 3GPP TS 23.304: "Proximity based Services (ProSe) in the 5G System (5GS)".

[78] 3GPP TS 23.247: "Architectural enhancements for 5G multicast-broadcast services".

[79] 3GPP TS 23.060: "General Packet Radio Service (GPRS); Service description; Stage 2".

[80] 3GPP TS 23.256: "Support of Uncrewed Aerial Systems (UAS) connectivity, identification and tracking; Stage 2".

[81] 3GPP TS 23.216: "Single Radio Voice Call Continuity (SRVCC); Stage 2".

[82] 3GPP TS 29.519: "5G System; Usage of the Unified Data Repository service for Policy Data, Application Data and Structure Data for Exposure; Stage 3".

[83] 3GPP TS 23.558: "Architecture for enabling Edge Applications".

[84] 3GPP TS 23.540: "Technical realization of Service Based Short Message Service; Stage 2".

[85] 3GPP TS 29.598: "Unstructured data storage services".

[86] 3GPP TS 23.041: "Technical realization of Cell Broadcast Service (CBS)".

[87] 3GPP TS 29.522: "5G System; Network Exposure Function Northbound APIs; Stage 3".

[88] 3GPP TS 23.586: "Architectural Enhancements to support Ranging based services and Sidelink Positioning".

[89] 3GPP TS 29.214: "Policy and Charging Control over Rx reference point".

[90] 3GPP TS 23.015: "Technical realization of Operator Determined Barring (ODB)".

[91] 3GPP TS 29.505: "5G System; Usage of the Unified Data Repository service for Subscription Data".

[92] 3GPP TS 28.405: "Quality of Experience (QoE) measurement collection; Control and configuration".

[93] 3GPP TS 29.564: "User Plane Function Services; Stage 3".

[94] 3GPP TS 33.533: "Security aspects of ranging based services and sidelink positioning".

[95] 3GPP TS 33.122: "Security aspects of Common API Framework (CAPIF) for 3GPP northbound APIs".

[96] 3GPP TS 23.204: "Support of Short Message Service (SMS) over generic 3GPP Internet Protocol (IP) access; Stage 2".

[97] IETF RFC 9298: "Proxying UDP in HTTP".

[98] IETF draft-ietf-masque-quic-proxy: "QUIC-Aware Proxying Using HTTP".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

[99] IETF draft-ietf-tsvwg-udp-options: "Transport Options for UDP".

Editor's note: The above reference will be revised to RFC when finalized by IETF.

[XX] 3GPP TS 23.369: "Architecture support for Ambient power-enabled Internet of Things; Stage 2".

\* \* \* \* Start of 2nd Change \* \* \* \*

#### 5.2.12.1 General

The following Data Set Identifiers shall be considered in this release: Subscription Data, Policy Data, Application data and Data for Exposure. The corresponding Data Subset Identifiers and Data (Sub)Key(s) are defined in Table 5.2.12.2.1-1.

The set of Data Set Identifiers shall be extensible to cater for new identifiers as well as for operator specific identifiers and related data to be consumed.

The following table illustrates the UDR Services.

Table 5.2.12.1-1: NF services provided by UDR

|  |  |  |  |
| --- | --- | --- | --- |
| NF service | Service Operations | Operation Semantics | Example Consumer(s) |
| Data Management (DM) | Query | Request/Response | UDM, PCF, NEF, ADM |
|  | Create | Request/Response | NEF |
|  | Delete | Request/Response | NEF |
|  | Update | Request/Response | UDM, PCF, NEF, ADM |
|  | Subscribe | Subscribe/Notify | UDM, PCF, NEF |
|  | Unsubscribe |  | UDM, PCF, NEF |
|  | Notify |  | UDM, PCF, NEF |
| GroupIDmap | Query | Request/Response | NRF, SCP |

The following table shows the Exposure data that may be stored in the UDR along with a time stamp using Data Management (DM) Service:

NOTE: When the data in Table 5.2.12.1-2 need to be monitored in real time, they should be monitored directly at the originating NF (e.g. registration state changes may be monitored via the Namf\_EventExposure service) and not use the stored information from UDR if it is not the latest. It is expected that such dynamically changing information (e.g. UE reachability status) is used for statistical purpose and analytics.

Table 5.2.12.1-2: Exposure data stored in the UDR

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Category | Information | Description | Data key | Data Sub key |
| **Access and mobility information** | UE location | Gives the Location or the last known location of a UE (e.g. Tai, Cell Id… both 3GPP and non-3GPP access location) | SUPI or GPSI |  |
|  | UE time zone | Current time zone for the UE | SUPI or GPSI |  |
|  | UE Access type | 3GPP access or non-3GPP access | SUPI or GPSI |  |
|  | UE RAT type | Determined as defined in clause 5.3.2.3 of TS 23.501 [2].The values are defined in TS 29.571 [70] | SUPI or GPSI |  |
|  | UE registration state | Registered or Deregistered | SUPI or GPSI |  |
|  | UE connectivity state | IDLE or CONNECTED | SUPI or GPSI |  |
|  | UE reachability status | It indicates if the UE is reachable for sending either SMS or downlink data to the UE, which is detected when the UE transitions to CM-CONNECTED state or when the UE will become reachable for paging, e.g. Periodic Registration Update timer | SUPI or GPSI |  |
|  | UE SMS over NAS service status | SMS over NAS supported or not in the UE | SUPI or GPSI |  |
|  | UE Roaming status | It indicates UE's current roaming status (the serving PLMN and/or whether the UE is in its HPLMN) | SUPI or GPSI |  |
|  | UE Current PLMN | Current PLMN for the UE | SUPI or GPSI |  |
| **Session management** | UE IP address | UE IP address | SUPI or GPSI | PDU session ID or DNN  |
| **information** | PDU session status | Active / released | SUPI or GPSI | PDU session ID or DNN or UE IP address |
|  | DNAI | DNAI | SUPI or GPSI | PDU session ID or DNN or UE IP address |
|  | N6 traffic routing information | N6 traffic routing information | SUPI or GPSI | PDU session ID or DNN or UE IP address |
| **DNAI mapping information** | DNAI | DNAI mapping information | DNN and/or S-NSSAI |  |

\* \* \* \* Start of 3rd Change \* \* \* \*

##### 5.2.12.2.1 General

The operations defined for Nudr\_DM service use following set of parameters defined in this clause:

- Data Set Identifier: uniquely identifies the requested set of data within the UDR (see clause 4.2.5).

- Data Subset Identifier: it uniquely identifies the data subset within each Data Set Identifier. As specified in the procedures in clause 4, e.g. subscription data can consist of subsets particularised for specific procedures like mobility, session, etc.

- Data Keys defined in Table 5.2.12.2.1-1

For Nudr\_DM\_Subscribe and Nudr\_DM\_Notify operations:

- The Target of Event Reporting is made up of a Data Key and possibly a Data Sub Key both defined in Table 5.2.12.2.1-1. When a Data Sub Key is defined in the table but not present in the Nudr\_DM\_Subscribe this means that all values of the Data Sub Key are targeted.

- The Data Set Identifier plus (if present) the (set of) Data Subset Identifier(s) corresponds to a (set of) Event ID(s) as defined in clause 4.15.1

An NF Service Consumer may include an indicator when it invokes Nudr\_DM Query/Create/Update service operation to subscribe the changes of the data, to avoid a separate Nudr\_DM\_Subscribe service operation.

Depending on the use case, it is possible to use a Data Key and/or one or multiple Data sub keys to further identify the corresponding data, as defined in Table 5.2.12.2.1-1 below.

Table 5.2.12.2.1-1: Data keys

|  |  |  |  |
| --- | --- | --- | --- |
| Data Set | Data Subset | Data Key | Data Sub Key |
|  | Access and Mobility Subscription data | SUPI | Serving PLMN ID and optionally NID |
|  | SMF Selection Subscription data | SUPI | Serving PLMN ID and optionally NID |
|  | UE context in SMF data | SUPI | PDU Session ID or DNN |
| Subscription Data (see clause 5.2.3.3.1) | SMS Management Subscription data | SUPI | Serving PLMN ID and optionally NID |
|  | SMS Subscription data | SUPI | Serving PLMN ID and optionally NID |
|  | Session Management Subscription data | SUPI | S-NSSAI |
|  |  |  | DNN |
|  |  |  | Serving PLMN ID and optionally NID |
|  | Slice Selection Subscription data | SUPI | Serving PLMN ID and optionally NID |
|  | Group Data(NOTE 5) | Internal Group Identifier orExternal Group Identifier | - |
|  | Identifier translation | GPSI |  |
|  |  | SUPI | Application Port ID, MTC Provider Information, AF Identifier |
|  | Intersystem continuity Context | SUPI | DNN |
|  | LCS privacy | SUPI | - |
|  | LCS mobile origination | SUPI | - |
|  | UE reachability | SUPI | - |
|  | Group Identifier Translation | Internal Group Identifier orExternal Group Identifier | - |
|  | UE context in SMSF data | SUPI | - |
|  | V2X Subscription data | SUPI | - |
|  | A2X Subscription data | SUPI | - |
|  | ProSe Subscription data | SUPI | - |
|  | Ranging/SL Positioning subscription data | SUPI | - |
|  | User consent | SUPI | Purpose |
|  | ECS Address Configuration Information (See Table 4.15.6.3d-1) | SUPI, Internal group identifier or external group identifier or any UE | DNN, S-NSSAI, (Serving) PLMN ID (NOTE 7) |
|  | MBS Subscription data(see clause 6.4.3 of TS 23.247 [78]) | SUPI | - |
|  | Ranging/Sidelink Positioning Subscription data | SUPI | - |
|  | Ranging/Sidelink Positioning privacy | SUPI | - |
|  | Operator Determined Barring data (see clause 2.3 of TS 23.015 [90] and TS 29.505 [91]) | SUPI | - |
|  | Shared data | Shared Data ID | - |
| Application data | Packet Flow Descriptions (PFDs) (NOTE 11) | Application Identifier |  |
|  | AF traffic influence request information for traffic routing | AF transaction internal ID |  |
|  | (See clause 5.6.7 and clause 6.3.7.2 of TS 23.501 [2]) | For non-roaming and LBO:S-NSSAI and DNN , accompanied with Internal Group Identifier(s) and/or Subscriber Category(s) or SUPI or "any UE" indicationFor HR-SBO:HPLMN S-NSSAI and DNN and either: HPLMN ID and IP address, or SUPI, or "any UE" indication and HPLMN ID.(NOTE 4) (NOTE 6) (NOTE 12) |  |
|  | AF traffic influence request information for service function chaining | AF transaction internal ID |  |
|  | (See clause 5.6.16 and clause 6.3.7.2 of TS 23.501 [2]) | S-NSSAI and DNNandInternal Group Identifier or SUPI or "any UE" indication (NOTE 4) |  |
|  | AF traffic influence request information for Handling of Payload Headers | AF transaction internal ID |  |
|  | (See clause 5.6.17 and clause 6.3.7.2 of TS 23.501 [2]) | S-NSSAI and DNNandInternal Group Identifier or SUPI or "any UE" indication (NOTE 4) |  |
|  | Background Data Transfer(NOTE 3) | Internal Group Identifier or SUPI |  |
|  | Service specific information (See clause 4.15.6.7) | S-NSSAI and DNNorInternal Group Identifier or SUPI or "any UE" indication (NOTE 4) or "PLMN ID(s) of inbound roamer" |  |
|  | UE ID mapping information (See clause 4.3.5 of TS 23.586 [88]) | GPSI or Application Layer ID |  |
|  | EAS Deployment Information(See clause 7.1 of TS 23.548 [74]) | DNN and/or S-NSSAI | Application Identifier and/or Internal Group Identifier |
|  | ECS Address Configuration Information (See Table 4.15.6.3d-1)(NOTE 13) | DNN, S-NSSAI and "any UE" indication |  |
|  | AM influence information (See clause 4.15.6.9.3) | AF transaction internal ID |  |
|  |  | S-NSSAI and DNNand/orInternal Group Identifier or SUPI or "any UE" indication or any inbound roaming UEs (NOTE 4, NOTE 8) |  |
|  | AF request for QoS information (See clause 4.15.6.14) | AF transaction internal ID |  |
|  |  | S-NSSAI and DNNand/orInternal Group Identifier or SUPI or "any UE" indication (NOTE 4) |  |
|  | Non-3GPP Device Identifier Information (clause 5.52 of TS 23.501 [2]) | SUPI | Non-3GPP Device Identifier |
|  | IPTV Configuration Data (see clause 7.7.1.1.4 in TS 23.316 [53]) | S-NSSAI and DNNand/orInternal Group Identifier or SUPI |  |
| Policy Data | UE context policy control data(See clause 6.2.1.3 of TS 23.503 [20]) | SUPI |  |
|  | PDU Session policy control data | SUPI | S-NSSAI |
|  | (See clause 6.2.1.3 of TS 23.503 [20]) |  | DNN |
|  | Policy Set Entry data(See clause 6.2.1.3 of TS 23.503 [20]) | SUPI (for the UDR in HPLMN) |  |
|  |  | PLMN ID (for the UDR in VPLMN) |  |
|  | Remaining allowed Usage data | SUPI | S-NSSAI |
|  | (See clause 6.2.1.3 of TS 23.503 [20]) |  | DNN |
|  | Sponsored data connectivity profiles (See clause 6.2.1.6 of TS 23.503 [20]) | Sponsor Identity |  |
|  | Background Data Transfer data(See clause 6.2.1.6 of TS 23.503 [20]) | Background Data Transfer Reference ID. (NOTE 2) |  |
|  |  | None. (NOTE 1) |  |
|  | Network Slice Specific Control Data(See clause 6.2.1.3 of TS 23.503 [20]) | S-NSSAI |  |
|  | 5G VN Group Specific Control Data (See clause 6.2.1.3 of TS 23.503 [20]) | S-NSSAI and DNNand/orInternal Group Identifier |  |
|  | Operator Specific Data | SUPI or GPSI |  |
|  | Planned Data Transfer with QoS requirements data(See clause 6.2.1.6 of TS 23.503 [20]) | PDTQ Reference ID. (NOTE 10) |  |
|  |  | None. (NOTE 9) |  |
| Exposure Data | Access and Mobility Information | SUPI or GPSI | PDU Session ID or  |
| (see clause 5.2.12.1) | Session Management information | SUPI or GPSI | UE IP address or DNN |
|  | DNAI mapping information | DNN and/or S-NSSAI |  |
| NOTE 1: Retrieval of the stored Background Data Transfer data for all ASP identifiers in the UDR requires Data Subset but no Data Key or Data Subkey(s).NOTE 2: Update of a Background Data Transfer data in the UDR requires a Data key to refer to a Background Data Transfer data as input data.NOTE 3: The Background Data Transfer includes the Background Data Reference ID and the ASP Identifier that requests to apply the Background Data Reference ID to the UE(s). Furthermore, the Background Data Transfer includes the relevant information received from the AF as defined in clause 6.1.2.4 of TS 23.503 [20].NOTE 4: When the Data Key targets "any UE", then the request to UDR applies on Application data that applies on all subscribers of the PLMN. For encoding, see TS 29.519 [82].NOTE 5: Group Data includes 5G VN group configuration, DNN and S-NSSAI specific Group Parameters and any other data related to a group stored in the UDR.NOTE 6: If a list of Internal Group IDs is used, the AF traffic influence request information request applies to the UEs that belong to every one of these groups, i.e. a single UE needs to be a member of every group in the list of Internal Group IDs.NOTE 7: When the Data Key targets "PLMN ID", then the request to UDR applies on subscription data about subscribers roaming in this PLMN.NOTE 8: In LBO roaming scenarios, when the AF request targets "any inbound roaming UEs", the AM influence information applies to the roaming subscribers from a PLMN or from any PLMN.NOTE 9: Retrieval of the stored Planned Data Transfer with QoS requirements data for all ASP identifiers in the UDR requires Data Subset but no Data Key or Data Subkey(s).NOTE 10: Update of a Planned Data Transfer with QoS requirements data in the UDR requires a Data key to refer to a Planned Data Transfer with QoS requirements data as input data.NOTE 11: Each PFD (as defined in TS 23.503 [20]) may be complimented with a source NF type which indicates the type of NF that has generated the PFD (i.e. AF or NWDAF). Absence of a source NF type indicates that the AF is the source of the PFD.NOTE 12: Further information about HR-SBO case and how these keys are used, see clause 4.3.6.1.NOTE 13: The ECS Address Configuration Information as part of application data is used for HR roaming case as defined in clause 6.5.2.6 of TS 23.548 [74]. |

The content of the UDR storage for (Data Set Id= Application Data, Data Subset Id = AF TrafficInfluence request information) is specified in Table 5.6.7-1 of TS 23.501 [2], in Table 5.6.16.2-1 of TS 23.501 [2] and in Table 5.6.17.2-1 of TS 23.501 [2]. This information is written by the NEF and read by the PCF(s). PCF(s) may also subscribe to changes onto this information.

Wireline access specific subscription data parameters are specified in TS 23.316 [53].

AIoT Data is specified in TS 23.369 [XX]. This information is managed by the ADM.

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