**SA WG2 Meeting #145E e-meeting *S2-2104338r05***

**Elbonia, May 17 – 28, 2021**

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| *CR-Form-v11.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **23.502** | **CR** | **2801** | **rev** | **-** | **Current version:** | **17.0.0** |  |
|  | | | | | | | | |
| *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 | **X** | ME | **X** | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** | Additional parameters using UE Parameters Update via UDM Control Plane Procedure | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson, ETRI, Samsung, Huawei | | | | | | | | | |
| ***Source to TSG:*** | SA2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eNPN | | | | |  | | ***Date:*** | | 2021-05-10 |
|  |  | | | |  | | |  | |  |
| ***Category:*** | **C** |  | | | | | | ***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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | It has been agreed to use UE Parameters Update via UDM Control Plane Procedure (UPU) for some additional parameters:   1. Provisioning of NSSAA credentials 2. Provisioning of PDU session authentication credentials   Some parameters have not yet been agreed to use UPU, but it is proposed to use UPU for the following as well:  3. Preferred SNPN and Group ID lis | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Extended the UPU procedure with possible parameters to be delivered | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4.20.1, 4.20.2, 5.2.3.3.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | |  | | | |
| ***Other specs*** | |  | **X** | Other core specifications | | |  | | | |
| ***affected:*** | |  | **X** | Test specifications | | |  | | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | |  | | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |

\* \* \* \* First Change \* \* \* \*

## 4.20 UE Parameters Update via UDM Control Plane Procedure

### 4.20.1 General

The purpose of the control plane solution for update of UE parameters is to allow the HPLMN, or SNPN or CH to update the UE with a specific set of parameters, generated and stored in the UDM, by delivering protected UDM Update Data via NAS signalling. The HPLMN, SNPN or CH updates such parameters based on the operator policies.

The UDM Update Data that the UDM delivers to the UE may contain:

- one or more UE parameters including:

- the updated Default Configured NSSAI (final consumer of the parameter is the ME);

- NSSAA credentials per S-NSSAI (final consumer of the par ameter is the ME or USIM);

- DN-specific credentials for authentication/authorization of the PDU Session establishment (final consumer of the parameter is the ME or USIM); and

- Lists for SNPN selection (see TS 23.501 [2] clause 5.30.2.3) (final consumer of the parameter is the ME)

- the updated Routing Indicator Data (final consumer of the parameter is the USIM).- a "UE acknowledgement requested" indication.

- a "re-registration requested" indication.

### 4.20.2 UE Parameters Update via UDM Control Plane Procedure



Figure 4.20.2-1: UE Parameters Update via UDM Control Plane Procedure

1. UDM decides to perform UE parameter update.

2. From UDM to the AMF: The UDM notifies the changes of the information related to the UE to the affected AMF by the means of invoking Nudm\_SDM\_Notification service operation. The Nudm\_SDM\_Notification service operation contains the UDM Update Data that needs to be delivered transparently to the UE over NAS within the Access and Mobility Subscription data. The UDM Update Data includes:

- The updated parameters to be delivered to the UE (see clause 4.20.1 for parameters possible to deliver).

- whether the UE needs to send an ack to the UDM.

- whether the UE needs to re-register after updating the data.

3. From AMF to UDM: If AMF determines that the UE is not reachable, then AMF invokes the Nudm\_SDM\_Info service operation to UDM indicating that the transmission of UE Parameters Update data is not successful. The UDM considers the procedure as UE Parameters Update procedure as pending and subsequent steps from 4-7 are skipped.

4. From AMF to the UE: the AMF sends a DL NAS TRANSPORT message to the served UE. The AMF includes in the DL NAS TRANSPORT message the transparent container received from the UDM.

The UE verifies based on mechanisms defined in TS 33.501 [15] that the UDM Update Data is provided by HPLMN, SNPN or CH; and:

- If the security check on the UDM Update Data is successful, as defined in TS 33.501 [15] the UE either stores the information and uses those parameters from that point onwards, or forwards the information to the USIM; and

- If the security check on the UDM Update Data fails, the UE discards the contents of the UDM Update Data.

5. The UE to the AMF: If the UE has verified that the UDM Update Data is provided by HPLMN, SNPN, CH and the UDM has requested the UE to send an ack to the UDM, the UE sends an UL NAS TRANSPORT message to the serving AMF with a transparent container including the UE acknowledgement.

6. The AMF to the UDM: If the AMF receives an UL NAS TRANSPORT message with a transparent container carrying a UE acknowledgement from the UE, the AMF sends a Nudm\_SDM\_Info request message including the transparent container to the UDM.

7. If the UDM has requested the UE to re-register, the UE waits until it goes back to RRC idle and initiates a Registration procedure as defined in TS 24.501 [25].

\* \* \* \* Next Change \* \* \* \*

##### 5.2.3.3.1 General

Subscription data types used in the Nudm\_SubscriberDataManagement Service are defined in Table 5.2.3.3.1-1 below.

Table 5.2.3.3.1-1: UE Subscription data types

| Subscription data type | Field | Description |
| --- | --- | --- |
| Access and Mobility Subscription data (data needed for UE | GPSI List | List of the GPSI (Generic Public Subscription Identifier) used both inside and outside of the 3GPP system to address a 3GPP subscription (see NOTE 9). |
| Registration and Mobility Management) | Internal Group ID-list | List of the subscribed internal group(s) that the UE belongs to. |
|  | Subscribed-UE-AMBR | The Maximum Aggregated uplink and downlink MBRs to be shared across all Non-GBR QoS Flows according to the subscription of the user. |
|  | Subscribed S-NSSAIs | The Network Slices that the UE subscribes to. In the roaming case, it indicates the subscribed Network Slices applicable to the Serving PLMN. |
|  | Default S-NSSAIs | The Subscribed S-NSSAIs marked as default S-NSSAI. In the roaming case, only those applicable to the Serving PLMN. |
|  | S-NSSAIs subject to Network Slice-Specific Authentication and Authorization | The Subscribed S-NSSAIs marked as subject to NSSAA. When present, the GPSI list shall include at least one GPSI. |
|  | UE Usage Type | As defined in TS 23.501 [2], clause 5.15.7.2. |
|  | RAT restriction | 3GPP Radio Access Technology(ies) not allowed the UE to access. |
|  | Forbidden area | Defines areas in which the UE is not permitted to initiate any communication with the network. |
|  | Service Area Restriction | Indicates Allowed Areas in which the UE is permitted to initiate communication with the network, and Non-allowed areas in which the UE and the network are not allowed to initiate Service Request or SM signalling to obtain user services. |
|  | Core Network type restriction | Defines whether UE is allowed to connect to 5GC and/or EPC for this PLMN. |
|  | CAG information | The CAG information includes Allowed CAG list and, optionally an indication whether the UE is only allowed to access 5GS via CAG cells as defined in TS 23.501 [2], clause 5.30.3. |
|  | CAG information Subscription Change Indication | When present, indicates to the serving AMF that the CAG information in the subscription data changed and the UE must be updated. |
|  | RFSP Index | An index to specific RRM configuration in the NG-RAN. |
|  | Subscribed Periodic Registration Timer | Indicates a subscribed Periodic Registration Timer value, which may be influenced by e.g. network configuration parameter as specified in clause 4.15.6.3a. |
|  | Subscribed Active Time | Indicates a subscribed active time value, which may be influenced by e.g. network configuration parameter as specified in clause 4.15.6.3a. |
|  | MPS priority | Indicates the user is subscribed to MPS as indicated in TS 23.501 [2], clause 5.16.5. |
|  | MCX priority | Indicates the user is subscribed to MCX as indicated in TS 23.501 [2], clause 5.16.6. |
|  | AMF-Associated Expected UE Behaviour parameters | Information on expected UE movement and communication characteristics. See clause 4.15.6.3 |
|  | Steering of Roaming | List of preferred PLMN/access technology combinations or HPLMN indication that no change of the "Operator Controlled PLMN Selector with Access Technology" list stored in the UE is needed (see NOTE 3).  Optionally includes an indication that the UDM requests an acknowledgement of the reception of this information from the UE. |
|  | SoR Update Indicator for Initial Registration | An indication whether the UDM requests the AMF to retrieve SoR information when the UE performs Registration with NAS Registration Type "Initial Registration". |
|  | SoR Update Indicator for Emergency Registration | An indication whether the UDM requests the AMF to retrieve SoR information when the UE performs Registration with NAS Registration Type "Emergency Registration". |
|  | Network Slicing Subscription Change Indicator | When present, indicates to the serving AMF that the subscription data for network slicing changed and the UE configuration must be updated. |
|  | Tracing Requirements | Trace requirements about a UE (e.g. trace reference, address of the Trace Collection Entity, etc.) is defined in TS 32.421 [39].  This information is only sent to AMF in the HPLMN or one of its equivalent PLMN(s). |
|  | Inclusion of NSSAI in RRC Connection Establishment Allowed | When present, it is used to indicate that the UE is allowed to include NSSAI in the RRC connection Establishment in clear text for 3GPP access. |
|  | Service Gap Time | Used to set the Service Gap timer for Service Gap Control (see TS 23.501 [2] clause 5.31.16). |
|  | Subscribed DNN list | List of the subscribed DNNs for the UE (NOTE 1). Used to determine the list of LADN available to the UE as defined in clause 5.6.5 of TS 23.501 [2]. |
|  | UDM Update Data | Includes a set of parameters (see clause 4.20.1 for parameters possible to deliver) to be delivered from UDM to the UE via NAS signalling as defined in clause 4.20 (NOTE 3).  Optionally includes an indication that the UDM requests an acknowledgement of the reception of this information from the UE and an indication for the UE to re-register. |
|  | NB-IoT UE priority | Numerical value used by the NG-RAN to prioritise between UEs accessing via NB-IoT. |
|  | Enhanced Coverage Restriction | Specifies whether CE mode B is restricted for the UE, or both CE mode A and CE mode B are restricted for the UE, or both CE mode A and CE mode B are not restricted for the UE. |
|  | NB-IoT Enhanced Coverage Restriction | Indicates whether Enhanced Coverage for NB-IoT UEs is restricted or not. |
|  | IAB-Operation allowed | Indicates that the subscriber is allowed for IAB-operation as specified in TS 23.501 [2] clause 5.35.2. |
|  | Charging Characteristics | It contains the Charging Characteristics as defined in Annex A of TS 32.256 [71].  This information, when provided, shall override any corresponding predefined information at the AMF. |
|  | Extended idle mode DRX cycle length | Indicates a subscribed extended idle mode DRX cycle length value. |
|  | PCF Selection Assistance info | list of combination of DNN and S-NSSAI that indicates that the same PCF needs to be selected for AM Policy Control and SM Policy Control (NOTE 10). |
| Slice Selection Subscription data (data needed for | Subscribed S-NSSAIs | The Network Slices that the UE subscribes to. In roaming case, it indicates the subscribed network slices applicable to the serving PLMN. |
| Slice Selection as described in clause 4.2.2.2.3 and | Default S-NSSAIs | The Subscribed S-NSSAIs marked as default S-NSSAI. In the roaming case, only those applicable to the Serving PLMN. |
| in clause 4.11.0a.5) | S-NSSAIs subject to Network Slice-Specific Authentication and Authorization | The Subscribed S-NSSAIs marked as subject to NSSAA. |
| SMF Selection | SUPI | Key |
| Subscription data (data needed for SMF | **SMF Selection Subscription data contains one or more S-NSSAI level subscription data:** | |
| Selection as described | S-NSSAI | Indicates the value of the S-NSSAI. |
| in clause 6.3.2 of | Subscribed DNN list | List of the subscribed DNNs for the UE (NOTE 1). |
| TS 23.501 [2]) | Default DNN | The default DNN if the UE does not provide a DNN (NOTE 2). |
|  | LBO Roaming Information | Indicates whether LBO roaming is allowed per DNN, or per (S-NSSAI, subscribed DNN). |
|  | Interworking with EPS indication list | Indicates whether EPS interworking is supported per (S-NSSAI, subscribed DNN). |
|  | Same SMF for Multiple PDU Sessions to the same DNN and S-NSSAI | Indication whether the same SMF for multiple PDU Sessions to the same DNN and S-NSSAI is required. |
|  | Invoke NEF indication | When present, indicates, per S-NSSAI and per DNN, that NEF based infrequent small data transfer shall be used for the PDU Session (see NOTE 8). |
|  | SMF information for static IP address/prefix | When static IP address/prefix is used, this may be used to indicate the associated SMF information per (S-NSSAI, DNN). |
| UE context in SMF | SUPI | Key. |
| data | PDU Session Id(s) | List of PDU Session Id(s) for the UE. |
|  | **For emergency PDU Session Id:** | |
|  | Emergency Information | The SMF+PGW-C FQDN for emergency session used for interworking with EPC. |
|  | **For each non-emergency PDU Session Id:** | |
|  | DNN | DNN for the PDU Session. |
|  | SMF | Allocated SMF for the PDU Session. Includes SMF IP Address and SMF NF Id. |
|  | SMF+PGW-C FQDN | The S5/S8 SMF+PGW-C FQDN used for interworking with EPS (see NOTE 5). |
|  | PCF ID | The PCF ID serving the PDU Session/PDN Connection. |
| SMS Management Subscription data (data needed by | SMS parameters | Indicates SMS parameters subscribed for SMS service such as SMS teleservice, SMS barring list |
| SMSF for SMSF Registration) | Trace Requirements | Trace requirements about a UE (e.g. trace reference, address of the Trace Collection Entity, etc.) is defined in TS 32.421 [39].  This information is only sent to a SMSF in HPLMN. |
| SMS Subscription data | SMS Subscription | Indicates subscription to any SMS delivery service over NAS irrespective of access type. |
| (data needed in AMF) |  |  |
| UE Context in SMSF data | SMSF Information | Indicates SMSF allocated for the UE, including SMSF address and SMSF NF ID. |
|  | Access Type | 3GPP or non-3GPP access through this SMSF |
| Session Management Subscription data (data needed for PDU | GPSI List | List of the GPSI (Generic Public Subscription Identifier) used both inside and outside of the 3GPP system to address a 3GPP subscription. |
| Session Establishment) | Internal Group ID-list | List of the subscribed internal group(s) that the UE belongs to. |
|  | Trace Requirements | Trace requirements about a UE (e.g. trace reference, address of the Trace Collection Entity, etc…) is defined in TS 32.421 [39].  This information is only sent to a SMF in the HPLMN or one of its equivalent PLMN(s). |
|  | **Session Management Subscription data contains one or more S-NSSAI level subscription data:** | |
|  | S-NSSAI | Indicates the value of the S-NSSAI. |
|  | Subscribed DNN list | List of the subscribed DNNs for the S-NSSAI (NOTE 1). |
|  | **For each DNN in S-NSSAI level subscription data:** | |
|  | DNN | DNN for the PDU Session. |
|  | Framed Route information | Set of Framed Routes. A Framed Route refers to a range of IPv4 addresses / IPv6 Prefixes to associate with a PDU Session established on this (DNN, S-NSSAI).  See NOTE 4. |
|  | IP Index information | Information used for selecting how the UE IP address is to be allocated (see clause 5.8.2.2.1 in TS 23.501 [2]). |
|  | Allowed PDU Session Types | Indicates the allowed PDU Session Types (IPv4, IPv6, IPv4v6, Ethernet, and Unstructured) for the DNN, S-NSSAI. See NOTE 6. |
|  | Default PDU Session Type | Indicates the default PDU Session Type for the DNN, S-NSSAI. |
|  | Allowed SSC modes | Indicates the allowed SSC modes for the DNN, S-NSSAI. |
|  | Default SSC mode | Indicate the default SSC mode for the DNN, S-NSSAI. |
|  | Interworking with EPS indication | Indicates whether interworking with EPS is supported for this DNN and S-NSSAI. |
|  | 5GS Subscribed QoS profile | The QoS Flow level QoS parameter values (5QI and ARP) for the DNN, S-NSSAI (see clause 5.7.2.7 of TS 23.501 [2]). |
|  | Charging Characteristics | It contains Charging Characteristics as defined in Annex A, clause A.1 of TS 32.255 [45]. This information, when provided, shall override any corresponding predefined information at the SMF. |
|  | Subscribed-Session-AMBR | The maximum aggregated uplink and downlink MBRs to be shared across all Non-GBR QoS Flows in each PDU Session, which are established for the DNN, S-NSSAI. |
|  | Static IP address/prefix | Indicate the static IP address/prefix for the DNN, S-NSSAI. |
|  | User Plane Security Policy | Indicates the security policy for integrity protection and encryption for the user plane. |
|  | PDU Session continuity at inter RAT mobility | Provides for this DDN, S-NSSAI how to handle a PDU Session when UE the moves to or from NB-IoT. Possible values are: maintain the PDU session; disconnect the PDU session with a reactivation request; disconnect PDU session without reactivation request; or to leave it to local VPLMN policy. |
|  | NEF Identity for NIDD | When present, indicates, per S-NSSAI and per DNN, the identity of the NEF to anchor Unstructured PDU Session. When not present for the S-NSSAI and DNN, the PDU session terminates in UPF (see NOTE 8). |
|  | NIDD information | Information such as External Group Identifier, External Identifier, MSISDN, or AF ID used for SMF-NEF Connection. |
|  | SMF-Associated Expected UE Behaviour parameters | Parameters on expected characteristics of a PDU Session their corresponding validity times as specified in clause 4.15.6.3. |
|  | Suggested number of downlink packets | Parameters on expected PDU session characteristics as specified in clauses 4.15.3.2.3b and 4.15.6.3a. |
|  | ATSSS information | Indicates whether MA PDU session establishment is allowed. |
|  | Secondary authentication indication | Indicates that whether the Secondary authentication/authorization (as defined in TS 23.501 [2] clause 5.6) is required for PDU Session Establishment as specified in clause 4.3.2.3. |
|  | DN-AAA server UE IP address allocation indication | Indicates that whether the SMF is required to request the UE IP address from the DN-AAA server (as defined in TS 23.501 [2] clause 5.6) for PDU Session Establishment as specified in clause 4.3.2.3. |
|  | DN-AAA server addressing information | If at least one of secondary DN-AAA authentication, DN-AAA authorization or DN-AAA UE IP address allocation is required by subscription data, the subscription data may also contain DN-AAA server addressing information. |
|  | Edge Configuration Server Address Configuration Information | Consists of one or more FQDN(s) and/or IP Address(es) of Edge Configuration Server(s) as defined in TS 23.548 [74] clause 6.5.2. |
| Identifier translation | SUPI | Corresponding SUPI for input GPSI. |
|  | (Optional) MSISDN | Corresponding GPSI (MSISDN) for input GPSI (External Identifier). This is optionally provided for legacy SMS infrastructure not supporting MSISDN-less SMS. The presence of an MSISDN should be interpreted as an indication to the NEF that MSISDN shall be used to identify the UE when sending the SMS to the SMS-SC via T4. |
|  | GPSI | Corresponding GPSI for input SUPI and Application Port ID. |
| Intersystem continuity Context | (DNN, PGW FQDN) list | For each DNN, indicates the SMF+PGW-C which support interworking with EPC. |
| LCS privacy  (data needed by GMLC) | LCS privacy profile data | Provides information for LCS privacy classes and Location Privacy Indication (LPI) as defined in clause 5.4.2 in TS 23.273 [51] |
| LCS mobile origination  (data needed by AMF) | LCS Mobile Originated Data | When present, indicates to the serving AMF which LCS mobile originated services are subscribed as defined in clause 7.1 in TS 23.273 [51]. |
| UE reachability | UE reachability information | Provides, per PLMN, the list of NF IDs or the list of NF sets or the list of NF types authorized to request notification for UE's reachability (NOTE 7). |
| V2X Subscription data (see TS 23.287 [73]) | NR V2X Services Authorization | Indicates whether the UE is authorized to use the NR sidelink for V2X services as Vehicle UE, Pedestrian UE, or both. |
|  | LTE V2X Services Authorization | Indicates whether the UE is authorized to use the LTE sidelink for V2X services as Vehicle UE, Pedestrian UE, or both. |
|  | NR UE-PC5-AMBR | AMBR of UE's NR sidelink (i.e. PC5) communication for V2X services. |
|  | LTE UE-PC5-AMBR | AMBR of UE's LTE sidelink (i.e. PC5) communication for V2X services. |
| ProSe Subscription data (see TS 23.304 [77]) | ProSe Service Authorization | Indicates whether the UE is authorized to use ProSe Direct Discovery, ProSe Direct Communication, or both. |
|  | ProSe NR UE-PC5-AMBR | AMBR of UE's NR sidelink (i.e. PC5) communication for ProSe services. |
| NOTE 1: The Subscribed DNN list can include a wildcard DNN.  NOTE 2: The default DNN shall not be a wildcard DNN.  NOTE 3: The Steering of Roaming information and UDM Update Data are protected using the mechanisms defined in TS 33.501 [15].  NOTE 4: Framed Route information and Framed Route(s) are defined in TS 23.501 [2].  NOTE 5: Depending on the scenario PGW-C FQDN may be for S5/S8, or for S2b (ePDG case).  NOTE 6: The Allowed PDU Session Types configured for a DNN which supports interworking with EPC should contain only the PDU Session Type corresponding to the PDN Type configured in the APN that corresponds to the DNN.  NOTE 7: Providing a list of NF types or a list of NF sets may be more appropriate for some deployments, e.g. in highly dynamic NF lifecycle management deployments.  NOTE 8: For a S-NSSAI and a DNN, the "Invoke NEF Indication" shall be present in the SMF selection subscription data if and only if the "NEF Identity for NIDD" Session Management Subscription Data includes a NEF Identity. When the "NEF Identity for NIDD" Session Management Subscription Data includes a NEF Identity for a S-NSSAI and DNN, the "Control Plane Only Indicator" will always be set for PDU Sessions to this S-NSSAI and DNN (see TS 23.501 [2], clause 5.31.4.1).  NOTE 9: When multiple GPSIs are included in the GPSI list, any GPSI in the list can be used in NSSAA procedures.  NOTE 10: The same PCF can be selected to serve the UE and to serve one or multiple PDU sessions, each of them is indicated in the list of S-NSSAI, DNN combinations in the PCF Selection Assistance Info. Providing one combination of DNN and S-NSSAI in the PCF Selection Assistance Info is assumed if interworking with EPS is needed. In case multiple PDU sessions to one DNN,S-NSSAI are established in EPS, it is appropriate to select same PCF by configuration or by using existing method, e.g. same PCF selection in usage monitoring. | | |

Table 5.2.3.3.1-2: Group Subscription data types

| Subscription data type | Field | Description |
| --- | --- | --- |
| Group Identifier translation | External Group Identifier | Identifies external group of UEs that the UE belongs to as defined in TS 23.682 [23]. |
|  | Internal Group Identifier | Identifies internal group of UEs that the UE belongs to as defined in TS 23.501 [2]. |
|  | SUPI list | Corresponding SUPI list for input External Group Identifier. |
| Group Data  (NOTE 1) | Internal Group Identifier | Internal identifiers of the group of UEs that the Group Data belongs to. |
|  | 5G VN group data | This optional information is used in the case of 5G VN related groups. It is defined in clause 4.15.6.3b. |
| NOTE 1: Group Data within Group Subscription Data can be managed using the Shared Data feature defined in TS 29.503 [52]. In that case, Shared Data is identified using Shared Data identifier and can contain additional information than the one defined in this table. | | |

At least a mandatory key is required for each Subscription Data Type to identify the corresponding data. Depending on the use case, for some Subscription Data Types it is possible to use one or multiple sub keys to further identify the corresponding data, as defined in Tables 5.2.3.3.1-3 and 5.2.3.3.1-4 below.

Table 5.2.3.3.1-3: UE Subscription data types keys

|  |  |  |
| --- | --- | --- |
| Subscription Data Types | Data Key | Data Sub Key |
| Access and Mobility Subscription data | SUPI | Serving PLMN IDand optionally NID |
| SMF Selection Subscription data | SUPI | Serving PLMN ID and optionally NID |
| UE context in SMF data | SUPI | S-NSSAI |
| SMS Management Subscription data | SUPI | Serving PLMN ID and optionally NID |
| SMS Subscription data | SUPI | Serving PLMN ID and optionally NID |
| UE Context in SMSF data | SUPI | - |
| Session Management Subscription data | SUPI | S-NSSAI |
|  |  | DNN |
|  |  | Serving PLMN ID and optionally NID |
| Identifier translation | GPSI | - |
|  | SUPI | Application Port ID |
| Slice Selection Subscription data | SUPI | Serving PLMN ID and optionally NID |
| Intersystem continuity Context | SUPI | DNN |
| LCS privacy | SUPI | - |
| LCS mobile origination | SUPI | - |
| UE reachability | SUPI | - |
| V2X Subscription data | SUPI | - |
| ProSe Subscription data | SUPI | - |

Table 5.2.3.3.1-4: Group Subscription data types keys

|  |  |  |
| --- | --- | --- |
| Subscription Data Types | Data Key | Data Sub Key |
| Group Identifier translation | External Group Identifier | - |
|  | Internal Group Identifier | - |
| Group Data | Internal Group Identifier | - |

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

\* \* \* \* End of Change \* \* \* \*