**SA WG2 Meeting #161 S2-2403032**

**26 February - 3 March, 2024, Athens, Greece was S2-2402326 *was S2-2401583***

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **23.502** | **CR** | **4509** | **rev** | **7?** | **Current version:** | **18.4.0** |  |
|  | | | | | | | | |
| *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 |  | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** | Corrections to remove Nnef\_UEId Service restrictions | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson, Verizon, AT&T, Vodafone, Deutsche Telekom, Dish Network, Nokia, Nokia Shanghai Bell | | | | | | | | | |
| ***Source to TSG:*** | SA2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI18, EDGEAPP | | | | |  | ***Date:*** | | | 2024-02-12 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-18 |
|  | *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:*** | | The Nnef\_UEId Service is currently restricted to only support AF specific UE Identifier retrieval with a GPSI in the form of an External Identifier. This restriction is not compliant with operator requirements to support exposure of GPSI in the form of MSISDN to an operator owned and operated AF. See also related LS from GSMA OPG in S2-2400032. | | | | | | | | |
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| ***Summary of change:*** | | Adding exposure of GPSI in the form of MSISDN in the Nnef\_UEId API by mapping the UE address for trusted AFs within agreed. | | | | | | | | |
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| ***Consequences if not approved:*** | | The Nnef\_UEId Service does not support retrieval of GPSI in the form of MSISDN even for the case of an AF that is owned and operated by the same HPLMN Operator. | | | | | | | | |
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| ***Clauses affected:*** | | 4.15.3.2.13, 4.15.10A (new), 5.2.6.27.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS 23.501 CR5011 | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

\*\*\* 1st Change \*\*\*

##### 4.15.3.2.13 Handling AF requests when the UE is identified via UE addressing information

An AF may request, via the NEF, the Event Exposure (as defined in clause 4.15.3) or the parameter provisioning (as defined in clause 4.15.6) targeting an individual UE, identifying the target UE by providing UE addressing information.

In this case the 5GC first needs to retrieve a UE Identifier based on:

- the UE addressing information as provided by the AF: this may correspond to an UE IP address as allocated by 5GC or to a MAC address of the UE (when Ethernet PDU Sessions are targeted),

- the corresponding DNN and/or S-NSSAI: this may have been provided by the AF or, alternatively, determined by the NEF using the identity of the AF.

The NEF retrieves the AF specific UE Identifier from the UDM. The AF specific UE Identifier may be determined in the GPSI form of External Identifier by executing step 2 to 10 of the AF specific UE Identifier retrieval procedure described in clause 4.15.10, or the UDM may be configured per subscriber and trusted AF to determine the UE Identifier in the GPSI form of MSISDN, when allowed and authorized by the operator, as described in clause 4.15.10A.

Once this is done, the 5GC may carry out the action requested by the AF and may deliver back to the AF an External Identifier, representing an AF specific UE Identifier, or an MSISDN (as defined in TS 23.501 [2]). The exposed AF specific UE Identifier or MSISDN may later be used by the AF to issue further requests about the same UE.

NOTE: The AF can use UE addressing information to identify the UE in a subscription request, but once received, this UE addressing information is translated into a GPSI and then the 5GC considers the subscription is associated with the GPSI and not with the UE address any more.

The AF may have its own means to maintain the AF specific UE Identifier through, e.g. an AF session. After the retrieval of an AF specific UE Identifier the AF shall not keep maintaining a mapping between the returned AF specific UE Identifier and the UE IP address as this mapping may change.

\*\*\* 2nd Change \*\*\*

### 4.15.10A MSISDN retrieval

This clause contains the detailed description and procedures for UE ID retrieval in the GPSI format of MSISDN as defined in TS 23.003 [33] for trusted AF. Depending on operator policy and local regulation exposure of GPSI in MSISDN format can be allowed when:

- The AF is allowed and authorized to retrieve the UE ID; and

- The AF is HPLMN or SNPN operator owned and operated within the operator domain and the AF does not re-expose the GPSI in MSISDN format outside the operator domain).

The figure and procedures of clause 4.15.10 shall be applicable for MSISDN retrieval with the following differences:

- description of the AF specific UE ID retrieval is replaced as the MSISDN retrieval; and

- description of the AF specific UE Identifier represented as an External Identifier is replaced as the UE Identifier in the GPSI form of MSISDN.\*\*\* 3rd Change \*\*\*

##### 5.2.6.27.2 Nnef\_UEId\_Get operation

**Service operation name:** Nnef\_UEId\_Get

**Description:** Get the UE identifier.

**Inputs, Required:** GPSI or UE address (i.e. IPv4/IPv6 address or MAC address) or External Group Identifier(s).

**Inputs, Optional:** DNN, S-NSSAI, Port number (e.g. TCP or UDP port), IP domain, Application port ID, MTC Provider Information, AF Identifier.

**Outputs, Required:** Result, GPSI either as an AF specific UE Identifier represented in the form of an External Identifier, or in the form of a MSISDN or SUPI or Internal Group Identifier(s).

NOTE 1: SUPI and Internal Group Identifier can only be exposed to roaming partners.

NOTE 2: The AF specific UE Identifier in GPSI form of MSISDN can only be exposed to a trusted AF when allowed and authorized by the operator as described in clause 4.15.10A.

**Outputs, Optional:** None.

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