**3GPP TSG CT WG3 Meeting #135 *C3-243303r1***

**Hyderabad, IN, 27 - 31 May, 2024 (Revision of C3-242428)**

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| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
|  |
|  | **29.591** | **CR** | **0183** | **rev** | **2** | **Current version:** | **18.5.0** |  |
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| *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:***  | Updates to Security and custom operations overview in Nnef\_UEId API |
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| ***Source to WG:*** | Ericsson |
| ***Source to TSG:*** | CT3 |
|  |  |
| ***Work item code:*** | Ranging\_SL, EDGE\_Ph2 |  | ***Date:*** | 2024-05-16 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***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 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)* |
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| ***Reason for change:*** | TS 23.586 clause 4.3.7 defined NEF provide the GMLC with the GPSI of the UE based on Application Layer ID mapping information stored in UDR application data. Also provide the GMLC with the Application Layer ID based on GPSI of the UE mapping information stored in UDR application data. Hence needs to be implented in this TS.Considering the service consumers are different and NEF following procedures are also different to fetch/get/retrieve the sensitive UE Id information, hence the Security of OAuth2 for corresponding different custom operations are implemented.The custom operations overview also better to be presented in one CR for clear pupdates in the figure for the new ones.SA2 has the related LS reply for LS out S2-2405863 (C3-242616) and TS 23.502 CR 4812 adding GMLC as service consumer to retrieve Ranging\_SL UE Id mapping information in Nnef\_UEId API. |
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| ***Summary of change:*** | Adding the OAuth2 scopes defined in Nnef\_UEId API per each customer operations.Update custom operations overview definition. |
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| ***Consequences if not approved:*** | Different service consumer may access other sensitive UE Id information data schema which not belong to this service consumer, arousing security leakage problems for the sensitive UE Id information. The Nnef\_UEId API custom operations overview is not completely designed. |
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| ***Clauses affected:*** | 5.6.4.1, 5.6.9 |
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|  | **Y** | **N** |  |  |
| ***Other specs*** | **X** |  |  Other core specifications  | TS 23.502 CR 4812  |
| ***affected:*** |  | **X** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
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| ***Other comments:*** | This CR does not impact the OpenAPI file.The correponding security implmenation of OpenAPI file is included in the related resource definition and OpenAPI file CRs. |
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| ***This CR's revision history:*** | **Rev 1 provides additional update:**Adding the related TS 23.502 CR 4812 in cover page and removed trusted AF as service consumer related changes. Also updated the WI TEI18, EDGEAPP as EDGE\_Ph2.**Rev 2 provides additional update:**Updated upon the service operation naming changed in the agreed TS 23.502 CR 4812. |

**Additional discussion(if needed):**

**Proposed changes:**

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

#### 5.6.4.1 Overview

The structure of the custom operation URIs of the Nnef\_UEId API is shown in figure 5.6.4.1-1.



Figure 5.6.4.1-1: Custom operation URI structure of the Nnef\_UEId API

Table 5.6.4.1-1 provides an overview of the custom operations and applicable HTTP methods defined for the Nnef\_UEId API.

Table 5.6.4.1-1: Custom operations without associated resources

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| --- | --- | --- | --- |
| Custom Operation name | Custom operation URI | Mapped HTTP method | Description |
| Fetch Roaming | /fetch-roaming | POST | Fetch the internal UE identifier from the H-NEF for the roaming UE. |
| Get UeId Mapping | /get-ueid-mapping | POST | Get the UE ID Mapping information (e.g., mapped Application Layer ID or GPSI for the Ranging/Sidelink Positioning-enabled UE). |

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

### 5.6.9 Security

As indicated in 3GPP TS 33.501 [8] and 3GPP TS 29.500 [4], the access to the Nnef\_UEId API may be authorized by means of the Oauth2 protocol (see IETF RFC 6749 [9]), based on local configuration, using the “Client Credentials” authorization grant, where the NRF (see 3GPP TS 29.510 [10]) plays the role of the authorization server.

If Oauth2 is used, an NF Service Consumer, prior to consuming services offered by the Nnef\_UEId API, shall obtain a "token" from the authorization server, by invoking the Access Token Request service, as described in 3GPP TS 29.510 [10], clause 5.5.2.2.

NOTE: When multiple NRFs are deployed in a network, the NRF used as authorization server is the same NRF that the NF Service Consumer used for discovering the Nnef\_UEId service.

The Nnef\_UEId API defines the following scopes for OAuth2 authorization as described in clause 4.10 of 3GPP TS 29.501 [5].

Table 5.6.9-1: OAuth2 scopes defined in Nnef\_UEId API

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| --- | --- |
| Scope | Description |
| "nnef-ueid" | Access to the Nnef\_UEId API |
| "nnef-ueid:fetch-roaming" | Access to custom operation applying to fetch the internal UE identifier from the H-UDM subscription data for the roaming UE. |
| "nnef-ueid:get-ueid-mapping" | Access to service operation applying to get the UE ID Mapping information (e.g., mapped Application Layer ID or GPSI for the Ranging/Sidelink Positioning-enabled UE). |

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