**3GPP TSG-CT WG1 Meeting #137-eC1-22xxxx**

**E-Meeting, 18th – 26th August 2022**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **24.554** | **CR** | **0143** | **rev** | **1** | **Current version:** | **17.1.0** |  |
|  |
| *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 | **X** | Radio Access Network |  | Core Network |  |

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| ***Title:***  | Clarification on the condition of including HPLMN ID in the DCR message |
|  |  |
| ***Source to WG:*** | Nokia, Nokia Shanghai Bell |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | 5G\_ProSe |  | ***Date:*** | 2022-07-01 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***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 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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
|  |  |
| ***Reason for change:*** | TS 33.503 has made a clarification on the format of the PRUK ID, and hence on the condition when to include the PLMN ID in the DCR message, as following in clause 6.3.3.2.2: *PRUK ID shall take the form of either the NAI format or the 64-bit string. If the PRUK ID is in NAI format, i.e. username@realm, the realm part* ***shall*** *include Home Network Identifier (i.e.,* ***HPLMN ID****).*and:*The 5G ProSe Remote UE sends a Direct Communication Request (DCR) that contains the PRUK ID or a SUCI if the Remote UE does not have a valid PRUK, Relay Service Code (RSC) of the 5G ProSe UE-to-Network Relay service and KNRP freshness parameter 1 to the 5G ProSe UE-to-Network Relay. If the PRUK ID is not in NAI format, the DCR message shall include the HPLMN ID of the 5G ProSe Remote UE*(See the agreed SA3 CR S3-221252 for reference).The above indicates that, having PRUK ID in NAI format or not, is a sufficient criterion whether to include the HPLMN ID in the DCR message.But the NAI is not defined in stage-3 spec. It needs to be added to the abbreviations. |
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| ***Summary of change:*** | 1- Adding the abbreviation "NAI" to the Abbreviations clause as it is used multiple times in the spec.2- Using "NAI" instead of "Network access identifier" in table 11.3.32.1. |
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| ***Consequences if not approved:*** | The term NAI remains undefined. |
|  |  |
| ***Clauses affected:*** | 3.2, 11.3.32 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** |  | **X** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

\*\*\*\*\* First change \*\*\*\*\*

## 3.2 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [1].

5G DDNMF 5G Direct Discovery Name Management Function

5G PKMF 5G ProSe Key Management Function

5G ProSe 5G Proximity-based Services

AA Authentication and Authorization

AKMA Authentication and Key Management for Applications

CTF (ADF) Charging Trigger Function (Accounting Data Forwarding)

DN Data Network

DUCK Discovery User Confidentility Key

DUIK Discovery User Integrity Key

DUSK Discovery User Scrambling Key

GBA Generic Bootstrapping Architecture

GFBR Guaranteed Flow Bit Rate

GPI GBA Push Information

LSB Least Significant 8 Bits

MSB Most Significant 8 Bits

MFBR Maximum Flow Bit Rate

MIC Message Integrity Check

NAI Network Access Identifier

NCGI NG-RAN Cell Global ID

PC5 LINK-AMBR PC5 Link Aggregated Bit Rate

PDUID ProSe Discovery UE ID

PQI PC5 5QI

ProSeP 5G ProSe Policy

PRUK Prose Remote User Key

PSDK Public Safety Discovery Key

RPAUID Restricted ProSe Application User ID

RQI Reflective QoS Indication

RSC Relay Service Code

TTL Time-To-Live

\*\*\*\*\* Next change \*\*\*\*\*

### 11.3.32 PRUK ID

The purpose of the PRUK ID information element is to carry the identity of the PRUK.

The PRUK ID is a type 4 information element with a minimal length of 3 octets and a maximum length of 255 octets.

The PRUK ID information element is coded as shown in figure 11.3.32.1 and table 11.3.32.1.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| PRUK ID IEI | octet 1 |
| Length of PRUK ID contents | octet 2 |
| 0Spare | 0Spare | 0Spare | 0Spare | 0Spare | 0Spare | 0Spare | PRUK ID format | octet 3 |
| PRUK ID | octet 4-n |

Figure 11.3.32.1: PRUK ID information element

Table 11.3.32.1: PRUK ID information element

|  |
| --- |
| PRUK ID format (bit 1 of octet 3) |
| Bit |  |
| **1** |  |
| 0 | NAI |
| 1 | 64-bit string |
| Bits 2 to 8 of octet 3 are spare and shall be coded as zero. |
| PRUK ID (octet 4 to octet n)Identifier of ProSe Relay User Key (PRUK). |

\*\*\*\*\* End of changes \*\*\*\*\*