**3GPP TSG-SA3 Meeting #106-e *S3-220440***

**e-meeting, 14 - 25 February 2022** *revision of S3-22xxxx*

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **33.847** | **CR** | **0013** | **rev** | **-** | **Current version:** | **17.0.1** |  |
|  | | | | | | | | |
| *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 | **X** |

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| ***Title:*** | Update to conclusions of KI#5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Philips International B.V. | | | | | | | | | |
| ***Source to TSG:*** | S3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | FS\_5G\_ProSe\_Sec | | | | |  | ***Date:*** | | | 2022-02-07 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Missing conclusion on protecting against privacy attacks on Remote UE identifiers (e.g. User Info ID, PRUK ID and Relay Service Code(s)). | | | | | | | | |
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| ***Summary of change:*** | | Add conclusions to Key Issue #5 about:   1. The protection of privacy sensitive parameters/identities used in Direct Communication Request, for which solution #42 can be used as a basis. 2. The protection against tracking by updating the long term identifiers during each UE-to-NW authorization request. | | | | | | | | |
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| ***Consequences if not approved:*** | | Potential privacy attacks against Remote UEs. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 7.5 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

## 7.5 Key Issue #5: Privacy protection over the UE-to-Network Relay

The following text is taken as a conclusion for the UE-to-Network Relay solution (L2, L3 with/without N3IWF):

Path switch is not included in the present document, no normative work is needed to address any privacy issue for the path switch scenario.

Solution #42 is used as a basis for normative work to protect against exposure of privacy sensitive parameters/identities used in the Direct Communication Request, such as User Info ID, PRUK ID and Relay Service Codes, in case restricted discovery is used.

To protect against long-term identifiers (e.g. User Info ID, PRUK ID) being misused for tracking of a target Remote UE, the long-term identifiers need to be updated as part of each UE-to-NW relay authorization request to the 5GC, by including an updated long-term identifier in the Direct Security Command during the relay authorization procedure whereby the updated long-term identifier is provided by the network uses an end-to-end protected payload between the network and Remote UE

NOTE 1: Further details can be worked out during normative phase.