**3GPP TSG-SA3 Meeting #116** **S3-242616-r1**

Jeju, South Korea, 20th - 24th May 2024

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **33.503** | **CR** | **0188** | **rev** | **1** | **Current version:** | **18.2.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **x** | Radio Access Network |  | Core Network |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Security of 5G ProSe PC5 communication without network assistance - correction | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Philips International B.V. | | | | | | | | | |
| ***Source to TSG:*** | S3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5G\_ProSe\_Ph2 | | | | |  | ***Date:*** | | | 2024-05-20 |
|  |  | | | |  | |  | | |  |
| ***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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | The Direct Communication Accept (DCA) message from the UE-to-UE Relay UE to the Source End UE should only be sent after a Direct Communication Accept message is received by the UE-to-UE relay UE from the Target End UE. Although security establishment between Target end UE and UE-to-UE relay UE may be succesfully completed, there is still a chance that UE-to-UE relay UE does not receive a DCA from Target end UE e.g., due to Target end UE moving away from the UE-to-UE relay UE’s | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Conditions under which a UE-to-UE relay UE sends a Direct Communication Accept message to Source end UE include UE-to-UE relay UE receiving a Direct Communication Accept message from Target end UE. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | May potentially lead to implementation issues. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.6.3.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

#### 6.6.3.2 Security of 5G ProSe PC5 Communication for 5G ProSe Layer-3 UE-to-UE Relay without network assistance

The security procedure in clause 6.2 is used to establish a secure PC5 link between the End UE and the 5G ProSe Layer-3 UE-to-UE Relay without network assistance with the following modifications.

- The RSC is included in the DCR message.

- The DCR message is protected based on the security mechanism defined in clause 6.3.5 with a modification that the length of the UP-PRUK ID/CP-PRUK ID is set to zero in clause 6.3.5.2.

- The Direct Communication Accept message is sent to the Source End UE after the 5G ProSe Layer-3 UE-to-UE Relay receives a Direct Communication Accept message from the Target End UE.