**3GPP TSG-CT WG1 Meeting #141eC1-232648**

**Online 17– 21 April 2023 *was* C1-232127**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  |  | **CR** |  | **rev** | **1** | **Current version:** |  |  |
|  |
| *For* [***HELP***](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:***  | Clarification of Child SA creation for PDU session modification |
|  |  |
| ***Source to WG:*** | Ericsson, Huawei |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** |  |  | ***Date:*** | 2023-04-18 |
|  |  |  |  |  |
| ***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 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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
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| ***Reason for change:*** | As specified in the subclause 7.5, the user plane IPsec SA creation procedure can be used for both PDU session creation and PDU session modification, the typical example of user plane IPsec SA creation for PDU session modification is to create a new chaild SA due to addition of new QoS flow(s), but in clause 7.5.4, only the PDU session establishment is mentioned. |
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| ***Summary of change:*** | Add the clarification of PDU session modification in subclause 7.5.4. |
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| ***Consequences if not approved:*** | Unclear user plane IPsec SA handling for PDU session modification. |
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| ***Clauses affected:*** | 7.5.4 |
|  |  |
|  | **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 \* \* \* \*

### 7.5.4 Child SA creation procedure not accepted by the UE

If a user plane IPsec SA establishment for a PDU session is not accepted by the UE, the UE shall send a CREATE\_CHILD\_SA response message to the N3IWF for untrusted non-3GPP access and the TNGF for trusted non-3GPP access with a Notify payload with error type.

For trusted non-3GPP access, if the UE fails to reserve QoS resources over non-3GPP access for the child SA associated with the QoS flows according to the Additional QoS information in the 5G\_QOS\_INFO Notify payload, the UE shall include a Notify payload with a Private Notify Message Error Type "NO\_RESOURCES\_OVER\_N3GPP" as defined in clause 9.2.4.2 in the CREATE\_CHILD\_SA response message.

For untrusted non-3GPP access, if the UE attempts to reserve QoS resources over non-3GPP access for the child SA associated with the QoS flows according to the Additional QoS information in the 5G\_QOS\_INFO Notify payload but fails the reservation, the UE shall include a Notify payload with a Private Notify Message Error Type "NO\_RESOURCES\_OVER\_N3GPP" as defined in clause 9.2.4.2 in the CREATE\_CHILD\_SA response message.

Upon receiving the CREATE\_CHILD\_SA response message with a Notify payload of error type:

- if PDU session establishment over non-3GPP access requires single user plane SA IPsec SA creation, the N3IWF for untrusted non-3GPP access and the TNGF for trusted non-3GPP access shall stop user plane SA IPsec SA creation procedure and indicate the failure for PDU session establishment over non-3GPP access.

- if PDU session establishment or PDU session modification over non-3GPP access requires multiple user plane SA IPsec SA creation, the N3IWF for untrusted non-3GPP access and the TNGF for trusted non-3GPP access may choose to continue user plane SA IPsec SA creation procedure for other user plane IPsec SAs, or stop user plane SA IPsec SA creation procedure and indicate the failure for PDU session establishment or PDU session modification over non-3GPP access.

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