**3GPP TSG-SA3 Meeting #114e *ad-hoc draft\_S3-240052-r1***

Electronic meeting, online, 22 - 26 January 2024

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **33.511** | **CR** | **0055** | **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)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network |  |

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| ***Title:*** | Correct the Requirement from RRC signalling to User data | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei; HiSilicon | | | | | | | | | |
| ***Source to TSG:*** | S3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | SCAS\_5G\_Ph3 | | | | |  | ***Date:*** | | | 2024-01-22 |
|  |  | | | |  | |  | | |  |
| ***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 test requirement and purpose in clause 4.2.2.1.8 were wrong. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Change RRC-signalling to user data in Requirement description and purpose. | | | | | | | | |
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| ***Consequences if not approved:*** | | The requirement and purpose are wrong. | | | | | | | | |
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| ***Clauses affected:*** | | 4.2.2.1.8 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

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

##### 4.2.2.1.8 Replay protection of user data between the UE and the gNB

*Requirement Name:* Replay protection of user data between the UE and the gNB.

*Requirement Reference:* TS 33.501 [2], clause 5.3.3

*Requirement Description****:*** The gNB supports integrity protection and replay protection of user data as specified in TS 33.501 [2], clause 5.3.3.

*Threat References:* TR 33.926 [5], clause D.2.2.4 – User plane data integrity protection.

***Test Case****:*

**Test Name:** TC-UP-DATA-REPLAY\_gNB

**Purpose:** Toverify that the user data packets are replay protected over the NG RAN air interface.

**Pre-Condition:**

- The gNB network product shall be connected in emulated/real network environments. The UE may be simulated.

- The tester shall have access to the NG RAN air interface.

- The tester shall active the user plane integrity protection of user data packets.

**Execution Steps:**

1. The tester shall capture the user plane data sent between UE and gNB using any network analyser over the NG RAN air interface.

2. Tester shall filter user plane data packets sent between UE and gNB.

3. Tester shall replay the captured user plane packets or shall use any packet crafting tool to create a user plane packet similar to the captured user plane packet and replay to the gNB.

4. Tester shall check whether the replayed user plane packets were processed by the gNB by capturing over NG RAN air interface to see if any corresponding response message is received from the gNB.

5. Tester shall confirm that gNB provides replay protection by dropping/ignoring the replayed packet if no corresponding response is received from the gNB to the replayed packet.

6. Tester shall verify from the result that if the replayed user plane packets are not accepted by gNB, the NG RAN air interface is replay protected.

**Expected Results:**

The user plane packets sent between the UE and gNB over the NG air interface is replay protected.

**Expected format of evidence:**

Evidence suitable for the interface, e.g. Screenshot containing the operational results.

\*\*\*\*\*\*\*\*\*\*\*\*\* End of Change\*\*\*\*\*\*\*\*\*\*\*\*\*