**3GPP TSG SA WG5 Meeting #156 *S5-244538***

**Maastricht, The Netherlands 19 - 23 August 2024**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **32.290** | **CR** | **0236** | **rev** | **1** | **Current version:** | **19.0.0** |  |
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| *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 | **X** |

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| ***Title:*** | Rel-19 CR 32.290 Correction on associating failure handling and retry handling | | | | | | | | | |
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| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI18 | | | | |  | ***Date:*** | | | 2024-08-22 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **A** |  | | | | | ***Release:*** | | | Rel-19 |
|  | *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 o. | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) Rel-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
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| ***Reason for change:*** | | The retry handling is introduced in 5G. Its relationship with failure handling which was introduced before 5G is not clearly described. | | | | | | | | |
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| ***Summary of change:*** | | 1. Clarify the relation between failure handling and retry handling.  2. Correct the reference used in retry handling clause 5.5.2. | | | | | | | | |
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| ***Consequences if not approved:*** | | The 5G failure handling and retry handling mechanism may not working properly. | | | | | | | | |
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| ***Clauses affected:*** | | 5.5.1.1, 5.5.2 | | | | | | | | |
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|  | | **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:*** | | Revision of S5-244005 | | | | | | | | |

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| **First change** |

#### 5.5.1.1 CTF detected failure

The failure handling determines what to do if the sending of charging data request to the CHF, including retry handling as described in 5.5.2, without response in a period of time (request times out).

In the case of the NF consumer (CTF) towards CHF request times out, NF consumer (CTF) uses application level failure handling (Terminate, Continue, Retry\_and\_terminate). Failure handling may be received from the CHF previously or may be locally configured. The value received from the CHF in the charging data response will always override any already existing value.

In case the CHF is determined not reachable, the CTF uses application level failure handling and may store Charging Data Request(s) or charging information. Once the connection to a CHF is established by the NF consumer (CTF), the CHF may receive the Charging Data Request(s) or charging information that were previously stored by NF consumer (CTF).

In case there is an application level error response from the CHF, NF consumer (CTF) action will depend on the type of Application Error.

For protocol level errors, refer to applicable protocol failure handling mechanisms as described in 32.291 [58].

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| **Next change** |

### 5.5.2 Retry handling

In case a NF consumer (CTF) does not receive a Charging Data Response, it may retransmit the Charging Data Request message. The number of retries and delay between retries shall be locally configured in the NF consumer (CTF).

If the retried charging data request [Initial] is received by the same CHF, the uniqueness checking may be based on the Charging Identifier included in the charging data request. CHF shall respond to the retried charging data request [Initial] with the original charging session identifier.

If the retried request is charging data request [Update] or charging data request [Termination], the uniqueness checking may based on the inspection of the Charging Session Identifier and Invocation Sequence Number pair.

If retried message shall have the same Invocation Sequence Number as the original of the retried message i.e. the Invocation Sequence Number shall not be incremented when the message is retried. The NF consumer (CTF) may send the retried message to an alternative CHF if the Session Failover indication is received from the CHF. The alternative CHF can be built as defined in clause 6.3.11 of 3GPP TS 23.501 [201].

In the case of a notification request time out the CHF may retry the message. The number of retries and delay between retries shall be locally configured in the CHF.

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| **End of change** |