**3GPP TSG-SA5 Meeting #145-e *S5-225278***

**e-meeting, 15 - 24 August 2022**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **32.290** | **CR** | **0185** | **rev** | **-** | **Current version:** | **17.5.0** |  |
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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:*** | Correcting service level usage for trigger mechanism | | | | | | | | | |
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| ***Source to WG:*** | Ericsson LM | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI17 | | | | |  | ***Date:*** | | | 2022-04-20 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***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)* | |
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| ***Reason for change:*** | | The use of service session and charging session in trigger mechanism isn’t described. | | | | | | | | |
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| ***Summary of change:*** | | Adding description of the relationship between service session and charging session in trigger mechanism. | | | | | | | | |
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| ***Consequences if not approved:*** | | The relationship is undefined which may cause interoperability issues. | | | | | | | | |
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| ***Clauses affected:*** | | 5.4.5 | | | | | | | | |
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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:*** | |  | | | | | | | | |

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| **First change** |

### 5.4.5 Trigger Mechanism

There are a number of mid-session service events, defined as triggers, which could affect the rating of the current service usage, e.g. QoS changes or end user location updates. The details for these triggers are defined in the service specific document (middle tier TS).

There are two levels of triggers: session and rating group. The relationship between service session and charging session is 1:1, therefore the triggers on this level are considered session level triggers. The session level triggers are applicable for all rating groups within a session, whereas a rating group level trigger is only applicable to that rating group. Any limit or threshold set on the session level is the total limit for the session including all the rating groups. The behaviour at trigger detection is specified by the middle tier TS.

Triggers enabled or disabled by default by the NF consumer, may be enabled or disabled by CHF in response to the NF consumer.

The CHF may enable one or more triggers at the NF consumer, by including them in the Triggers element. Each Triggers element can only contain one trigger of each type. The omitted triggers in the Triggers element shall be interpreted by the NF consumer as disabled. The enabled and disabled triggers setting at the NF consumer shall remain in effect until another Triggers element is received from the CHF for the session or rating group. When the NF consumer receives a Triggers element it shall enable all triggers present in the Triggers element and disable all other triggers at the same level. The presence of the Triggers element without any trigger type in a response message allows CHF to disable all the triggers at the NF Consumer for session or rating group.

NOTE: This removes the need for the CHF to send trigger information in every response message when they have not changed.

Two categories of chargeable events are identified:

- immediate report: chargeable events for which, when occurring, the current counts are closed and sent together with the charging data generated by the NF consumer towards the CHF in a Charging Data Request message. Counts indicating zero usage may be reported. New counts are started by the NF consumer.

- deferred report: chargeable events for which, when occurring, the current counts are closed and stored together with the charging data generated by the NF consumer. Counts indicating zero usage may be included. The stored counts will be sent to the CHF in next a Charging Data Request message. New counts are started by the NF consumer.

CHF may change the category of one or more triggers by using the Triggers element containing category information in the response message.

For the rating group: the rating group level triggers and category take precedence over the session level triggers and category.

If there is a request for quota management outstanding for a rating group i.e., the request has not been responded to, any new request for quota management for the same rating group should be postponed until after the response has been received.

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| **End of changes** |