**3GPP TSG-SA5 Meeting #133e *S5-205159***

**e-meeting 12th - 21st October 2020**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **32.290** | **CR** | **0135** | **rev** | **1** | **Current version:** | **16.5.0** |  |
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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 trigger of usage reporting | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI16 | | | | |  | ***Date:*** | | | 2020-10-02 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-16 |
|  | *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-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 handling of usage reporting and interaction between message and rating group level are unclear | | | | | | | | |
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| ***Summary of change:*** | | Clarifying the relationship between message and rating group level reporting. | | | | | | | | |
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| ***Consequences if not approved:*** | | Interoperability issues since it’s unclear what may be reported when. | | | | | | | | |
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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:*** | | Revision of S5-205159. | | | | | | | | |

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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. end user QoS changes or 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 session level triggers are applicable for all rating groups withing a session, whereas a rating group level trigger is only applicable to that rating group. Any limit or threshold set on the session level shall be treated as the sum of all rating groups, i.e. a limit on the session level is the total limit for the session. The behaviour at trigger detection is specified by the middle tier TS.

Triggers are enabled or disabled by default by the NF consumer, and triggers may be enabled or disabled by CHF.

The CHF may enable one or more triggers at the NF consumer, by including them in the Triggers element, omitted triggers shall be interpreted 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 new 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 Request message, it may report zero usage. 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, it may include zero counts. The stored counts will be sent to the CHF in next a 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 takes president over session level triggers; i.e. the category set on the rating group will be the one valid for the rating group independent on the session level category.

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| **End of changes** |