**3GPP TSG-SA5 Meeting #129 *S5-201233r1***

**Hyderabad, India, 24 – 28 February 2020**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **32.255** | **CR** | **0190** | **rev** | **-** | **Current version:** | **16.3.0** |  |
|  | | | | | | | | |
| *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 | **x** |

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| ***Title:*** | Add description on identifier in a PDU session for 5G RG and FN RG | | | | | | | | | |
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| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5WWC | | | | |  | ***Date:*** | | | 2020-02-14 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | B |  | | | | | ***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:*** | | This contribution is to add description on identifier in a PDU session for 5G RG and FN RG. | | | | | | | | |
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| ***Summary of change:*** | | Add description on identifier in a PDU session for 5G RG and FN RG. | | | | | | | | |
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| ***Consequences if not approved:*** | | No description on identifers for 5WWC scenarios in TS 32.255. | | | | | | | | |
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| ***Clauses affected:*** | | 5.1.3 | | | | | | | | |
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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*** |

### 5.1.3 Charging information

Charging information in the 5GC domain network is collected for each UE by the SMFs. PDU session charging allows the SMF to collect and categorize per UE per UPF per PDU session, charging information related to data volumes.

The SMF shall collect the following charging information for converged online and offline charging:

- usage of the access and core network resources: the charging information shall describe the amount of data delivered to and forwarded from the UE;

- usage duration: duration of PDU session is counted as the time interval from PDU session establishment to PDU session release;

- user: the charging information shall provide the actual UE addresses used by the user for the PDU session;

- data network: the charging information shall describe the data network addresses with a level of accuracy as determined by the DNN;

- usage of the external data networks: the charging information shall describe the amount of data sent and received to and from the external data network. External networks can be identified by the DNN;

- start time: identifying the time when the PDU session was started;

- user location: HPLMN, VPLMN, inside/outside presence reporting area, plus optional higher-accuracy location information.

The service data flows categorization is achieved by rating group or combination of the rating group and service id: i.e. based on the level of reporting defined per PCC rule, counting per rating group or combination of the rating group and service id. According to TS 23.503 [202], flow based charging shall support different charging models per PCC rule. These charging models may be based on volume, time and/or on number of events matching a specific service data flow template in PCC rule.

For service data flows defined for FBC, the SMF shall collect the following charging information:

- the information described above for PDU session;

- the amount of data transmitted in uplink and downlink directions categorized by rating group or combination of the rating group and service id when volume based charging applies;

- the duration of service data flows is counted and categorized by rating group or combination of the rating group and service id when time based charging applies;

- the number of events and corresponding time stamps categorized by rating group or combination of the rating group and service id when event based charging applies.

Within the PDU session the SMF shall collect the charging information for service data flows per UPF, categorized with rating group or combination of the rating group and service id.

The user can be identified by a Generic Public Subscription Identifier (GPSI) and/or a 5G Subscription Permanent Identifier (SUPI). For wireline access, SUPI is used to identify subscriber via wireline network as specified in clause 5.9.2 of TS 23.501.

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| **End of change** |