**3GPP TSG-SA5 Meeting #131e *S5-203122rev3***

**e-meeting 25th May-3rd June 2020**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **32.255** | **CR** | **0231** | **rev** |  **1** | **Current version:** | **16.4.0** |  |
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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:***  | Add PDU Address in for IPv6 multi-homing  |
|  |  |
| ***Source to WG:*** | Huawei  |
| ***Source to TSG:*** | S5 |
|  |  |
| ***Work item code:*** | TEI 16 |  | ***Date:*** | 2020-05-28 |
|  |  |  |  |  |
| ***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 canbe 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 PDU Addresses per PSA for IPv6 multi-homing is not specified in TS 32.255. |
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| ***Summary of change:*** | This contribution is to add IPv6 multi-homing information for PSA in Multiple Unit Usage for IPv6 multi-homing, including in the charging data request/response and CDR. The adding of IPv6 multi-homing address is associated to UPF ID, that not need to add new trigger(s). |
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| ***Consequences if not approved:*** | In IPv6 multi-homing scenario, IPv6 multi-homing is not supported. |
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| ***Clauses affected:*** | 6.1.1.2 |
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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 ...  |
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| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

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| **First change to TS 32.255** |

#### 6.1.1.2 Charging Data Request message

Table 6.1.1.2.1 illustrates the basic structure of a Charging Data Request message from the SMF as used for 5G data connectivity converged charging.

Table 6.1.1.2.1: Charging Data Request message contents

| **Information Element** | **Category for converged charging** | **Category for offline only charging** | **Description** |
| --- | --- | --- | --- |
| Session Identifier | OC | OC | Described in TS 32.290 [57] |
| Subscriber Identifier | OM | M | Described in TS 32.290 [57]In case SUPI is not present (for emergency service), the User Equipment Info in table 6.2.1.2.1. shall be present for identifying the user. |
| NF Consumer Identification | M | M | Described in TS 32.290 [57] |
| NF Functionality | M | OC | Described in TS 32.290 [57] |
| NF Name | OC | OC | Described in TS 32.290 [57] |
| NF Address | OC | OC | Described in TS 32.290 [57] |
| NF PLMN ID | OC | OC | Described in TS 32.290 [57] |
| Invocation Timestamp | M | M | Described in TS 32.290 [57] |
| Invocation Sequence Number | M | M | Described in TS 32.290 [57] |
| Notify URI | OC | OC | Described in TS 32.290 [57] |
| Service Specification Information | OC | OC | Described in TS 32.290 [57] |
| Triggers | OC | OC | This field is described in TS 32.290 [57] and holds the 5G data connectivity specific triggers described in clause 5.2.1. |
| Multiple Unit Usage  | OC | OC | Described in TS 32.290 [57]This field is not applicable to QBC. |
| Rating Group | M | M | Described in TS 32.290 [57] |
| Requested Unit | OC | - | Described in TS 32.290 [57] |
| Used Unit Container | OC | OC | Described in TS 32.290 [57] |
| Triggers | OC | OC | This field is described in TS 32.290 [57] and holds the 5G data connectivity specific triggers described in clause 5.2.1.  |
| PDU Container Information  | OC | OC | This field holds the 5G data connectivity PDU session container specific information described in clause 6.2. |
| UPF ID | OC | OC | This field holds the UPF identifier used to identify the UPF. These fields shall only be included when either quota is requested per UPF, or used units are reported per UPF |
| Used Multi-homing Information | Oc | Oc | This field holds the IPv6 multi-homed PDU session specific information, if available. |
| Used multi-homing address | Oc | Oc | This field holds the IPv6 prefix used by PSA to transfer service data flow for the IPv6 multi-homed PDU session. When included, this field is associated to used units for multi-homing address. |
| Multi-homing UPF ID | Oc | Oc | This field holds the UPF ID in multi-homed PDU session.These fields shall only be included when either quota is requested per UPF, or used units are reported per UPF. |
| PDU Session Charging Information | OM | OM | This field holds the 5G data connectivity specific information described in clause 6.2. |
| Roaming QBC information | OM | OM | This field holds the roaming QBC specific information defined in clause 6.2.1.4This field is not applicable to FBC. |

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| **End of Change** |