**3GPP TSG- Meeting #**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
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|  |  | **CR** |  | **rev** |  | **Current version:** |  |  |
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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:***  |  |
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| ***Source to WG:*** | , Huawei |
| ***Source to TSG:*** |  |
|  |  |
| ***Work item code:*** |  |  | ***Date:*** |  |
|  |  |  |  |  |
| ***Category:*** |  |  | ***Release:*** |  |
|  | *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:*** | Missing I-SMF controlled addition/change/removal of PSA and UL CL or BP procedure related charging message flow for local traffic offload ETSUN scenario.  |
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| ***Summary of change:*** | Add charging message flow for I-SMF controlled local UPF and addition/removal/change of local PSA UPF information and local traffic offload usage report charging message flow, based on TS 23.502 clause 4.23.9.1, 4.23.9.2 and 4.23.9.3 procedures. |
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| ***Consequences if not approved:*** | Cannot support local traffic offload charging upon addition/removal/change of PSA and UL CL or BP controlled by I-SMF. |
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| ***Clauses affected:*** | 5.2.2.14.x (new) |
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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** |

##### 5.2.2.14.x Addition/removal/change of PSA and UL CL or BP controlled by I-SMF

This clause based on TS 23.502 clause 4.23.9.1, 4.23.9.2 and 4.23.9.3 procedures, describe simplified addition/removal/change of PSA and UL CL or BP controlled by I-SMF procedure, with charging message flow:



**Figure 5.2.2.14.x: Addition/removal/change of PSA and UL CL or BP controlled by I-SMF**

PDU Session served by both I-SMF and SMF has been established, with the ongoing Charging session.

PDU Session message flows with addition/removal/change of I-SMF controlled addition/removal/change of PSA and UL CL/BP with charging message flows as below:

* Addition of PDU Session Anchor (PSA2) for UL CL/BP controlled by I-SMF message flows, refer step 2 to step 4 described in figure 4.23.9.1-1 of TS 23.502[201].
* Removal of PDU Session Anchor (PSA2) for UL CL/BP controlled by I-SMF message flows, refer step 2 to step 9 described in figure 4.23.9.2-1 of TS 23.502[201].
* Change of PDU Session Anchor (PSA0 to PSA2) for UL CL/BP controlled by I-SMF message flows, refer step 2 to step 3 and step 4 to step 10 described in figure 4.23.9.3-1 of TS 23.502[201].

x.ch-a. All counts are closed in SMF for I-SMF controlled local PSA traffic, and a Charging Data Request [Update] message including I-SMF information and “addition/removal of UPF” trigger is sent to CHF, if required by immediate report category trigger. New counts and time stamps for all addition of PSA active service data flows are started in the SMF.x.ch-b The CHF updates the CDR for this PDU Session.

x.ch-c. The CHF acknowledges by sending Charging Data Response [Update] to the SMF.

NOTE 1: x in figure 4.23.9.1-1, refer to the last step number in the detail message flows. For addition of PDU Session Anchor (PSA2), x refers to 4. For removal of PDU Session Anchor (PSA2), x refers to 9. For addition of PDU Session Anchor (PSA2) during change of PSA2, x refers to 3.

Removal of PDU Session Anchor (PSA0) for UL CL/BP controlled by I-SMF message flows, refer step 4 to step 10 described in figure 4.23.9.3-1 of TS 23.502[201].

10.ch-a. All counts are closed in SMF for I-SMF controlled the PSA0 traffic, and a Charging Data Request [Update] message including I-SMF information and “removal of UPF” trigger is sent to CHF, if required by immediate report category trigger.

10.ch-b The CHF updates the CDR for this PDU Session.

10.ch-c. The CHF acknowledges by sending Charging Data Response [Update] to the SMF.

NOTE 2: steps 10.ch-a to 10.ch-c are only applied in Change of PDU Session Anchor (PSA0 to PSA2) procedure.

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| **End of change** |