**3GPP TSG-CT WG1 Meeting #125-eC1-20XXXX**

**Electronic meeting, 20-28 August 2020**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **24.193** | **CR** | **0004** | **rev** | **1** | **Current version:** | **16.0.0** |  |
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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 | **X** | Radio Access Network |  | Core Network |  |

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| ***Title:*** | Handling of MA PDU session after an inter-system change from N1 mode to S1 mode | | | | | | | | | |
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| ***Source to WG:*** | MediaTek Inc. | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | ATSSS | | | | |  | ***Date:*** | | | 2020-08-27 |
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| ***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) Rel-17 (Release 17)* | |
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| ***Reason for change:*** | | In 23.502 *4.22.6.2.2 5GS to EPS idle mode mobility using N26 interface* *Based on the signaling flow in Figure 4.11.1.3.2-1, the procedure is performed with the following differences and modifications:*  *- Step 5a is also performed with all the PGW-C+SMFs corresponding to the MA PDU Sessions with allocated EBI(s).*  *- In step 12, if the MA PDU Session is established in both 3GPP and non-3GPP accesses and the MA PDU Session is moved to EPS, the SMF triggers the MA PDU Session Release procedure over non-3GPP access.*  *- In step 15a, the AMF also requests the release of the MA PDU Session which has resources established for 3GPP access, but not expected to be transferred to EPS, i.e. no EBI(s) allocated to the MA PDU Session by triggering Nsmf\_PDUSession\_UpdateSMContext service operation.*  *NOTE: When the SMF received the release request from the AMF, the SMF decides whether the MA PDU Session is completely released or released over a single access based on its local policy.*  *....* *4.22.6.2.5 5GS to EPS mobility without N26 interface* *Based on the signaling flow in Figure 4.11.2.2-1, the procedure is performed with the following differences and modifications:*  *- In step 10 (and step 13 in clause 4.11.2.4.1), if the MA PDU Session is established in both 3GPP and non-3GPP accesses and the MA PDU Session is moved to EPS, the PGW-C + SMF triggers the MA PDU Session Release procedure over non-3GPP access. PGW-C + SMF and UE locally release the context related to ATSSS operation, e.g., ATSSS rules and Measurement Assitance Information for the relevant session.*  *- In step 13, during the additional PDN Connectivity Procedure, if the MA PDU Session is established in both 3GPP and non-3GPP accesses and the MA PDU Session is moved to EPS, the PGW-C + SMF triggers the MA PDU Session Release procedure over non-3GPP access. PGW-C + SMF and UE locally release the context related to ATSSS operation, e.g., ATSSS rules and Measurement Assitance Information for the relevant session(s).*  *- Step 14 is also performed for the MA PDU session(s) transferred to EPS.*  Based on the texts above, it is not clear that whether the SMF includes N1 SM container (PDU Session Release Command) in the Namf\_Communication\_N1N2MessageTransfer service operation.  However, with the texts in blue, it implies that PDU session release command is not provided to the UE othewise it does not need to emphasize that the UE and SMF locally release ATSSS operation.  Current text in 24.193 using the procedures specified in TS24.501 which forces the NW to choose only UE-NW Peer-to-Peer PDU session release procedure approach but this is not indicated/implied in Stage 2.  Propose changes to clarify UE behavior under this scenario, and clarify NW behavior | | | | | | | | |
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| ***Summary of change:*** | | For an inter-system change from N1 mode to S1 mode, if the UE established an MA PDU session over 3GPP access and non-3GPP access, if the MA PDU session is transferred to EPS as a PDN connection,   * the UE local release the non-3GPP access of this MA PDU session. | | | | | | | | |
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| ***Consequences if not approved:*** | | For an inter-system change from N1 mode to S1 mode, if the UE established an MA PDU session over 3GPP access and non-3GPP access, if the MA PDU session is transferred to EPS as a PDN connection,   * the UE/NW behavior toward the MA PDU is not clear | | | | | | | | |
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| ***Clauses affected:*** | | 4.6 | | | | | | | | |
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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:*** | |  | | | | | | | | |
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| ***This CR's revision history:*** | |  | | | | | | | | |

\*\*\* change \*\*\*

## 4.6 EPS interworking

In this release of specification, with the exception of an MA PDU session established as specified in clause 4.7, the MA PDU session is established in 5GS.

In the network supporting N26 interface:

a) if the UE established an MA PDU session over non-3GPP access only, no EPS bearer identity can be assigned to any QoS flow of the MA PDU session as specified in 3GPP TS 23.502 [3];

b) if the UE established an MA PDU session over 3GPP access and non-3GPP access and the user plane of the MA PDU session over 3GPP access is released, the EPS bearer identity assigned for the MA PDU session can be revoked as specified in 3GPP TS 23.502 [3];

c) for an inter-system change from N1 mode to S1 mode:

1) if the UE established an MA PDU session over 3GPP access only, the UE can follow the procedure as specified in clause 6.1.4.1 of 3GPP TS 24.501 [6]; or

2) if the UE established an MA PDU session over 3GPP access and non-3GPP access,

A) if the MA PDU session is transferred to EPS as a PDN connection, the UE can locally release the MA PDU session over 3GPP access and non-3GPP access; or

NOTE: The QoS flow(s) with EBI assigned over non-3GPP access is also transferred to the corresponding PDN connection.

B) if the MA PDU session is not transferred to EPS as a PDN connection and the SMF decides to move the traffic of the MA PDU session from 3GPP access to non-3GPP access, the SMF can initiate the network-requested PDU session modification procedure as specified in clause 6.3.2.2 of 3GPP TS 24.501 [6]; and

d) for an inter-system change from S1 mode to N1 mode, if the UE requests an MA PDU session or the related URSP or UE local configuration does not mandate that the PDU session is established over a single access when transferring the PDN connection to 3GPP access, the PDN connection can be converted by the network to an MA PDU session via the UE-requested PDU session modification procedure (see clause 5.2.5).

In the network not supporting N26 interface:

a) for an inter-system change from N1 mode to S1 mode, if the UE intends to transfer the MA PDU session to EPS, the UE can follow the procedure as specified in clause 6.1.4.2 of 3GPP TS 24.501 [6] and locally release the MA PDU session over 3GPP access and non-3GPP access; and

b) for an inter-system change from S1 mode to N1 mode, if the related URSP or UE local configuration does not mandate that the PDU session is established over a single access, the UE can initiate the UE-requested PDU session establishment procedure to request an MA PDU session (see clause 5.2.1) or to allow the PDU session to be upgraded to an MA PDU session (see clause 5.2.6) when transferring the PDN connection to 5GS.

\*\*\* end of change \*\*\*