**3GPP TSG-CT WG1 Meeting #123-eC1-202642**

**Electronic meeting; 16-24 April 2020**

**Source: SHARP**

**Title: Clarification of SMF and UE behavior in 5GS to EPS mobility without N26 interface**

**Spec: 3GPP TS 24.193 v1.1.0**

**Agenda item: 16.2.5**

**Document for: Agreement**

**1. Introduction**

This CR intends to align with SA2 requirement.

**2. Reason for Change**

TS 23.502 defines the following network and UE behaviors for 5GS to EPS mobility without N26 interface (in subclause 4.22.6.2.5):

*- 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.*

However, the behavior of the green part is missing in TS 24.501.

Therefore, based on this requirement, we propose to update the network and UE and network behaviors for 5GS to EPS mobility without N26 interface in subclause 4.6 of TS 24.193.

**4. Proposal**

It is proposed to agree the following changes to 3GPP TS 24.193 v1.1.0.

\* \* \* First 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 SMF can initiate the network-requested PDU session release procedure over non-3GPP access as specified in clause 6.3.3.2 of 3GPP TS 24.501 [6]; 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:

1) 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 the network-requested PDU session release procedure over non-3GPP access can be performed to release the MA PDU session in 5GS as specified in clause 6.3.3.2 of 3GPP TS 24.501 [6]; or

2) otherwise, the UE can keep the MA PDU session or release the MA PDU session in 5GS which is UE implementation specific; 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.