**3GPP TSG-SA5 Meeting #146Bis-e *S5-231123***

Electronic meeting, 16 - 19 January 2023

**Source: Ericsson**

**Title: Adding solution in clause 7.1 for QoS flow session triggers**

**Document for: Approval**

**Agenda Item: 7.5.3**

# 1 Decision/action requested

**Include the proposed changes in TR 28.827.**

# 2 References

[1] 3GPP TR 28.827: "Study on 5G charging for additional roaming scenarios and actors"

# 3 Rationale

Adding a solution on QBC with QoS flow session triggers in clause 7.1 for key issue #1e covering requirements REQ-CH\_VMNO-07.

# 4 Detailed proposal

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| **First change** |

#### 7.1.4.y Solution #1.y: QBC with QoS flow session triggers

##### 7.1.4.y.1 General

A possible solution for key issue #1f covering requirements REQ-CH\_VMNO-07 about the PDU session level setting for QBC triggers.

The introduce specific QBC triggers that are common for all QoS flows, corresponding to the PDU session level triggers for FBC i.e., there will be PDU session triggers for FBC and QoS flow session triggers for QBC. The triggers for QoS flow session level would be added based on requirements, but the main ones would be the limits.

##### 7.1.4.y.2 Reference architecture

The reference architecture would be the same as in solution #1.3 clause 7.1.4.3.2.

##### 7.1.4.y.3 Message flows

For home routed scenario, the message flow is same with the PDU session establishment message flow in clause 5.2.2.12.2 of TS 32.255 [4]. In step 11ch-d of Figure 5.2.2.12.2.1 in TS 32.255 [4], the H-CHF acknowledges by sending Charging Data Response to the H-SMF and optionally includes a "Roaming Charging Profile". The "Roaming Charging Profile" may include both QoS flow and QoS flow session level triggers (e.g., both QoS change and QoS flow session limit) for QBC, for FBC both rating group and PDU session level triggers may be included in the trigger element of Charging Data Response.

For local breakout scenario, the message flow is same with the PDU session establishment message flow in clause 5.2.2.18.2 of TS 32.255 [4]. In step 9ch-d2 of Figure 5.2.2.18.2-1 in TS 32.255 [4], the H-CHF acknowledges by sending Charging Data Response to the V-SMF and optionally includes a "Roaming Charging Profile". The "Roaming Charging Profile" may include both QoS flow and QoS flow session level triggers (e.g., both QoS change and QoS flow session limit) for QBC, for FBC both rating group and PDU session level triggers may be included in the trigger element of Charging Data Response.

This means that the values and status of PDU session level triggers will only be used for FBC, while the QoS flow session level triggers will only be used for QBC. For example, a PDU Session level "Expiry of data time limit per PDU session" for FBC is set to 600 seconds while a QoS flow session level trigger for QBC is set to 900 seconds, then the 600 seconds value will be used for the rating groups while the 900 seconds value will be used for the QoS flows.

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| **End of changes** |