**3GPP TSG-SA5 Meeting #144-e *S5-224211***

**e-meeting, 27 June - 1 July 2022**

**Source: Ericsson**

**Title: Adding solution in clause 7.6 for reconciliation**

**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 solution in clause 7.6 for reconciliation using the UE to collect some measurements. These measurements may be used to check some of the records received from the visited MNO by the home MNO, with data that cannot be influenced by the visited MNO.

# 4 Detailed proposal

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| **First change** |

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 23.501:"System Architecture for the 5G System".

[3] GSMA TD.201: "Common Billing and Charging Processes ".

[4] 3GPP TS 32.255:" Charging management;5G Data connectivity domain charging; stage 2".

[5] 3GPP TS 32.256:" Charging management; 5G connection and mobility domain charging; Stage 2".

[6] 3GPP TS 23.502: "Procedures for the 5G System (5GS)".

[7] GSMA WA.51: "5G SA Implementation Guidelines".

[8] 3GPP TS 32.274: "Charging management; Short Message Service (SMS) charging".

[9] 3GPP TS 32.256: "Charging management; 5G connection and mobility domain charging; Stage 2".

[10] 3GPP TS 32.240: "Charging management; Charging architecture and principles".

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| **Second change** |

#### 7.6.4.x Solution #6.x: Using UE measurements

##### 7.6.4.x.1 General

A possible solution for key issue #6a would have selected UEs reuse the reporting mechanism defined in TS 32.240 [10] annex D, which would allow the UE do usage information reports to the home MNO.

##### 7.6.4.x.2 Reference architecture

It would also mean that there is a need to adapt the architecture described in TS 32.240 [10] annex D to a service-based architecture.



Figure 7.6.4.x-1: Reconciliation using UE measurements in service-based interface representation

##### 7.6.4.x.3 Message flows

To avoid having all UEs always reporting usage information for all visited MNOs, a limited set of UEs can be configured with which visited MNOs the reports are to be sent. The UE would also be required to be configured with the address of the new NF with CTF (ADF) to be able to know where to send the reports.

The UE with CTF (AMC) sends usage information reports to a new NF with CTF (ADF). The new NF with CTF (ADF) interact with CHF using Nchf interface, without quota management. The CCS produces CDRs which may be used for comparison with the wholesale charging received from the visited MNO.

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| **End of changes** |