**3GPP TSG-SA5 Meeting #146Bis-e *S5-231129***

Electronic meeting, 16 - 19 January 2023

**Source: Ericsson**

**Title: Additional evaluation of solutions for clause 7.2**

**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 evaluations of solutions for clause 7.2 covering convey charging information from visited MNO to home MNO.

# 4 Detailed proposal

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| **First change** |

### 7.2.5 Evaluation

Solutions #2.1, #2.2, #2.x all solves key issues #2a and #2b and covers requirements REQ-CH\_CVTOH-01, and REQ-CH\_CVTOH-02. Solution #2.1 and #2.x solves more key issues and covers more requirements, and #2.2 is already supported in the scope of 5G connectivity charging. Solution #2.x will increase the signalling compared to both #2.1 and #2.2.

Solutions #2.1, #2.4, #2.16, #2.x all solves key issues #2f and #2g and covers requirements REQ-CH\_CVTOH-03, and REQ-CH\_CVTOH-04. Solution #2.1 and #2.x solves more key issues and covers more requirements, and #2.16 is already supported in the scope of SMS charging as is. Solution #2.x will increase the signalling compared to both #2.1 and #2.4.

Solutions #2.1, #2.5, and #2.x all solves key issues #2h and #2i and covers requirements REQ-CH\_CVTOH-05, and REQ-CH\_CVTOH-06. Solution #2.1 solves more key issues and covers more requirements and #2.5 is already supported in the scope of 5G connection and mobility charging as is. Solution #2.x will increase the signalling compared to both #2.1 and #2.5.

Solutions #2.8 and 2.9 both solves key issues #2c, and require solution #2.1 or #2.x and can be supported at the same time depending on the need and capability of the V-CHF. The solution #2.8 requires that vNRF can provide information about H-CHF, therefore allowing both would be preferred.

Solutions #2.6 and #2.7 both solves key issues #2d and require solution #2.1. Solution #2.6, reusing Nchf\_ConvergedCharging service, will minimize the impact on the specification and would not require the H-CHF to support another service, while solution #2.7 would make it possible to include solution #2.10. One solution could be to initially allow the CHF to be a consumer of theNchf\_ConvergedCharging service and if required by other features later introduce another service if required by those.

Solutions #2.10, #2.11, #2.12, and #2.17 all solves key issues #2e. Solutions #2.10 and #2.11 both require solution #2.1, and solution #2.10 also requires solution #2.7. Solutions #2.12 and #2.17 both require solution #2.2, using solution #2.12 the need for #2.17 will be limited since the time between triggers would not be long, solution #2.17 will also add to the interoperability testing. The roaming charging profile is also intended for QBC and wholesale which means that it should not have a big end user influence.

Solutions #2.13, #2.14, and #2.15 all solves the same issue and requires solutions #2.1 and #2.6, both solutions #2.14 and #2.15 will increase the size of the messages by in some cases sending the same information twice. There is no real requirements or advantages requiring sending the same information twice.

For solution #2.1 the most straight forward would be to also use solutions #2.6, #2.8, #2.11, and #2.13, since in essence this would mean allowing the CHF to be a consumer as well as a producer of the Nchf\_ConvergedCharging service and wouldn’t require any change on Nchf\_ConvergedCharging service for existing consumers.

Editor’s note: Further evaluations are FFS.

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| **End of changes** |