**3GPP TSG-SA5 Meeting #146Bis-e *S5-231092rev1***

**Electronic meeting, 16 - 19 January 2023**

**Source: MATRIXX Software**

**Title: pCR TR 32.847** **Update solution #6.3 and add new solution #6.x**

**Document for: Approval**

**Agenda Item: 7.5.1**

# 1 Decision/action requested

**This pCR is to Update solution#6.3 add new solution #6.x**

# 2 References

[1] 3GPP TR 32.847 "Study on Charging Aspects for Network Slicing Phase 2"

# 3 Rationale

This pCR is to Update solution #6.3.

The current description of solution #6.3 needs to be aligned with solutions concluded for Key issue #1 and Key issue #2, meaning CTF-based solutions.

# 4 Detailed proposal

The following changes are proposed to be incorporated into TR 32.847 [1]

|  |
| --- |
| **First change** |

### 6.6.4 Solution#6.3 NSACF based Network slice charging – CEF based

#### 6.6.4.1 General description

This solution addresses the Key Issue#6 for REQ-NSCH-01, and REQ-NSCH-11 potential requirements and is based Network slice charging performed based on NSACF and CEF.

|  |
| --- |
| **Next change** |

### 6.6.x Solution#6.x NSACF based Network slice charging – CTF based

#### 6.6.x.1 General description

This solution addresses the Key Issue#6 for REQ-NSCH-01, and REQ-NSCH-11 potential requirements and is based Network slice charging performed based on NSACF (CTF).

#### 6.6.x.2 Architecture description



Figure 6.6.x.2-1: NSACF (CTF) based Network slice charging

#### 6.6.x.3 Flow description

The following figure 6.6.x.3-1 describes the high level charging procedure for UE PDU session Converged Charging influenced by Network slice converged charging based on NSACF (CTF).



**Figure 6.6.x.3-1: UE PDU session converged Charging influenced by Network slice converged charging based on NSACF**

1. Same steps as Figure 6.1.6.3-1 referred-to for solution #2.5: Tenant CCS control of NS\_quota under use of Nchf\_ConvergedCharging service.

2. Same steps as Figure 6.6.2.3-1 between UE, SMF, UE CCF and Tenant CCS with:

9ch-b1. UE PDU session charging needs NS charging information related to "Nb of PDU sessions" for this S-NSSAI.

9ch-b2a. Charging service request to Tenant CCS (S-NSSAI, UE PDU session charging information, UE requested NS charging information related to "Nb of PDU sessions").

9ch-b2b. Tenant CCS correlates received UE charging information with existing content of NS charging information for the S-NSSAI related to "Nb of PDU sessions" .

The following figure 6.6.x.3-2 describes the high-level charging procedure for UE Registration Converged Charging influenced by Network slice converged charging based on NSACF(CTF). 

**Figure 6.6.x.3-2: UE Registration converged Charging influenced by Network slice converged charging based on NSACF**

1. Same steps as Figure 6.1.6.3-1: Tenant CCS control of NS\_quota under use of Nchf\_ConvergedCharging service .

2. Same steps as Figure 6.6.2.3-2 between UE, AMF, UE CCS and Tenant CCS with:

16ch-b1. Allowed S-NSSAI(s) in the Allowed NSSAI received for UE registration converged charging, needs NS charging information related to "Nb of Reg UEs".

16ch-b2a. Charging service request to Tenant CCS (S-NSSAI, UE registration charging information, UE requested NS charging information related to "Nb of Reg UEs").

16ch-b2b. Tenant CCS correlates received UE charging information with existing content of NS charging information for the S-NSSAI related to "Nb of Reg UEs" ".

|  |
| --- |
| **End of change** |