**3GPP TSG-SA5 Meeting #145-e *S5-225126rev1***

**e-meeting, 15 - 24 August 2022**

**Source: MATRIXX Software**

**Title: pCR TR 32.847 New NSACF (CTF) - NS quota management solution for Key issue#1**

**Document for: Approval**

**Agenda Item: 7.5.1**

# 1 Decision/action requested

**This pCR is to** **introduce a New NSACF (CTF) - NS quota management solution for Key issue#1**

# 2 References

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

# 3 Rationale

This pCR is to introduce a New NSACF (CTF) - NS quota management solution for Key issue#1 combining solutions #1.1 and 1.3.

# 4 Detailed proposal

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

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| **First change** |

### 6.1.x Solution#1.x New NSACF (CTF) – NS\_quota management by CCS

#### 6.1.x.1 General Description

This solution combines solution#1.1 and solution#1.3 based on Network Slice quota management between the CHF and the NSACF, session based charging and intermediate thresholds.

The NSACF is configured at provisioning of the network slice, with "max Nb of Reg UEs" and intermediate "Nb of Reg UEs" thresholds below the "max Nb of Reg UEs" for triggering the CHF.

NS\_quota of "Nb of Reg UEs" for S-NSSAI is determined by CCS: either set to the NSACF configured "max. Nb of Reg UEs" value, or to a higher value.

During the charging session, the CHF may provide new intermediate thresholds which override existing ones. The CHF may also grant new NS\_quota to override the "max Nb of Reg UEs" configured in NSACF.

#### 6.1.x.2 Architecture Description

Same architecture as clause 6.1.2.4.

#### 6.1.x.3 Flow description

The flow and steps in clause 6.1.3.5 apply with following differences:

0ch. CHF obtains per S-NSSAI the "max Nb of Reg UEs" during NSI creation and determines the initial value for NS\_quota of Nb of Reg UEs.

1. The NSACF is configured per S-NSSAI, with "max Nb of Reg UEs" and a set of "Number of UEs" intermediate "Nb of Reg UEs" thresholds (downwards and upward thresholdss) under the "max Nb of Reg UEs".

2ch-d. CHF provides response to NSACF, with possible new intermediate thresholds and new NS\_quota, overriding existing intermediate thresholds and "max Nb of Reg UEs" respectively.

3ch-d. same as step 2ch-d.

And additional flow and steps if the charging session was not released in previous steps:



**Figure 6.1.x.3-1: NSACF (CTF) and Nchf\_NSConvergedCharging service session based - figure 6.1.3.5-1 continuation**

4. NS admission control procedure per 3GPP TS 23.502 [11].

4ch-a: For a particular S-NSSAI, with this UE to be added the "max Nb of Reg UEs" will be reached.

4ch-b: The NSACF invokes the Nchf\_NSConvergedCharging service update and reporting of used units "Nb of Reg UEs".

4ch-c. CHF Account and rating control, additional NS\_quota for 'Nb of Reg UEs" may be granted by CHF.

4ch-d. CHF provides response to NSACF, with possible new NS\_quota overriding NSACF "max Nb of Reg UEs".

5. NS admission control procedure per 3GPP TS 23.502 [11].

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| **End of changes** |