**3GPP TSG-SA5 Meeting #145-e *S5-225125rev1***

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

**Source: MATRIXX Software**

**Title: pCR TR 32.847 Solve Editor’s Notes on solution#1.3**

**Document for: Approval**

**Agenda Item: 7.5.1**

# 1 Decision/action requested

**This pCR is to Solve Editor’s Notes on solution#1.3**

# 2 References

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

# 3 Rationale

This pCR is to Solve Editor’s Notes on solution#1.3.

- The first Editor's Note: based on the architecture of solution#1.3, the NF is the NSACF

Editor’s Note: The NF that will hold the CTF is FFS

- The second Editor's Note: the usual capability of CHF to supply new set of triggers is used, and

Editor’s Note: How the thresholds and triggers are to be handled is FFS.

# 4 Detailed proposal

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

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| **First change** |

#### 6.1.3.3 Trigger mechanism

The threshold may be set at provisioning of the network slice together with other network slice profiled information and updated by configuration changes. The CHF may provide new triggers during the charging session.

The following table 6.1.3.3-1 describes the set of thresholds and triggering conditions:

**Table 6.1.3.3-1: trigger thresholds**

| **Thresholds** | **Trigger conditions** | **Allowed to be updated by CHF** |
| --- | --- | --- |
| N1  | Number of simultaneous UEs for triggering [initial] when crossing upwards  | No |
| N2  | Number of simultaneous UEs for triggering [update] when crossing upwards and downwards  | yes |
| N3  | Number of simultaneous UEs for triggering [termination] when crossing downwards | yes |

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| **Next change** |

#### 6.1.3.6 Charging scenarios

Determination of passing a threshold for a network slice using Session based charging (SCUR), Converged charging without quota management.



Figure 6.1.3.6-1: SCUR – UE addition or removal to network slice

**0. Threshold configured as initial trigger: N1.**

**1) UE to be added:** A UE is to be added to the network slice.

**2) Trigger evaluated:** the NSACF (CTF) determines that the addition of the UE would cause the N1 threshold to be passed.

**3) Charging Data Request [Initial]:** the NSACF (CTF) starts the charging session by sending a request to the CHF for the passing of the threshold.

**4) Account, Rating Control:** the CHF may use the information to rate and make deductions from customer's account balance.

**5) Create CDR:** the CHF creates a CDR related to the service.

**6) Charging Data Response [Initial]:** the CHF informs the NSACF (CTF) on the result of the request, the CHF may provide new thresholds indicated with corresponding operation "update or termination": e.g. N2 (update), N3 (termination).

**7) UE added:** The UE is added to the network slice.

**8) UE to be added or removed:** a UE is to be added to or removed from the network slice.

**9) Trigger evaluated:** the NSACF (CTF) determines that the change in number of UE would cause a CHF provided (e.g. N2) to be passed.

**10) Charging Data Request [Update]:** the NSACF (CTF) updates the charging session by sending a request to the CHF for the passing of the threshold.

**11) Account, Rating Control:** the CHF may use the information to rate and make deductions from customer's account balance.

**12) Update CDR:** the CHF updates the CDR related to the service.

**13) Charging Data Response [Update]:** the CHF informs the NSACF (CTF) on the result of the request. The CHF may provide new thresholds indicated with corresponding operation "update or termination" overriding step 6 triggers.

**14) UE added:** if the trigger was addition of UE then the UE is added to the network slice.

**15) UE removed:** a UE is to be removed from the network slice.

**16) Trigger evaluated:** the NSACF (CTF) determines that the removal of UE would cause the termination threshold trigger (e.g. N3) to be passed.

**17) Charging Data Request [Termination]:** the NSACF (CTF) terminates the charging session by sending a request to the CHF for the passing of the threshold.

**18) Account, Rating Control:** the CHF may use the information to rate and make deductions from customer's account balance.

**19) Close CDR:** the CHF closes the CDR related to the service.

**20) Charging Data Response [Termination]:** the CHF informs the NSACF (CTF) on the result of the request.

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| **End of changes** |