**3GPP TSG-SA3 Meeting #115 *S3-240868***

Athens, Greece, 26th February - 1st March 2024

**Source: Huawei, HiSilicon**

**Title: Issues in NSSAA procedure with multiple registrations**

**Document for: Endorsement**

**Agenda Item: 4.1.15**

# 1 Decision/action requested

***Choose wayforward proposal options and endorse***

# 2 References

[1] TS33.501

# 3 Rationale

### 3.1 Issues for NSSAA with multiple registrations [1]

1. The NSSAA messages exchanged between NSSAAF and AAA-S are currently identified by S-NSSAI and GPSI (e.g. messages 5-6 and 7-8). When UE registers to two different PLMNs (same S-NSSAI and GPSI), the messages from AAA-S are indistinguishable to NSSAAF and NSSAAF does not know to which AMF should forward. This will cause NSSAA failure.



2. Two independent (as agreed for NAS security) registration procedures require AAA-S to record two statuses of NSSAA, as it is possible to have different outcomes for two registrations. AAA-S can not distinguishable based on current NSSAA procedure due to the same S-NSSAI and GPSI used.

3. This issue is due to the fact that the initial NSSAA procedure was designed only for single registration. (multiple registrtion was introduced later).

### 3.2 Implication if not addressed

NSSAA can not work together with mulitple registration feature.

# 4 Proposals for endorsement

In order to make progress, the following technical questions/decisions need to be answered/made by SA3 colectively:

**Q1: Do you agree current NSSAA is not working with mulitple PLMN registrations? (Yes or No)**

**(If YES) Q2: which release the issue should be addressed? (R16, R17, R18, R19)**

**Note 1:** a simple solution available, e.g. include PLMN ID in messages in addtional to GPSI for differentiation

**Note 2:** if not to address for R16/R17/R18, weshould include a statement in TS33.501 corresponding releases e.g. **“mulitple registration feature is not supported for NSSAA in the present document Release 1x”**

**(If NO)** Minute the decision, e.g., mulitple registration feature can be supported in the NSSAA procedure since Rel-16. The issue identified in S3-240428 is determined by SA3 not valid, with the following voting outcome:

**Issue not valid**: nn

**Issue valid**: mm