**3GPP TSG-SA3 Meeting #108-e  *S3-221878***

**e-meeting, 22 – 26 August 2022** *revision of S3-22XXXX*

**Source: ZTE**

**Title: Security Assurance Requirement and Test for AKMA subscription synchronization in the AAnF**

**Document for: Approval**

**Agenda Item: 4.5**

# 1 Decision/action requested

***SA3 is kindly asked to approve the added security assurance requirement and related test case for SCAS AAnF.***

# 2 References

[1] 3GPP TS 33.535 “Authentication and Key Management for Applications (AKMA) based on 3GPP credentials in the 5G System (5GS)”

# 3 Rationale

Based on the requirement in clause 6.6 of TS 33.535, this contribution proposes to add a security assurance requirement and the corresponding test case to TS 33.537 to assure correct handling by the AAnF in case of AKMA subscription synchronization during AKMA context removal procedure.

# 4 Detailed proposal

\*\*\*\*\*\*\*\*\*\*\*\*\*Start of Change \*\*\*\*\*\*\*\*\*\*\*\*\*\*

### 4.2.2 Security functional requirements on the AAnF deriving from 3GPP specifications and related test cases

#### 4.2.2.x Authentication and key agreement procedure

##### 4.2.2.x.1 AKMA context removal handling

*Requirement Name*: AKMA context removal handling

*Requirement Reference:* TS 33.535 [4], clause 6.6

*Requirement Description*: "This procedure is used to remove the AKMA context in the AAnF. NF consumers may initiate this procedure due to local policy." as specified in TS 33.535[4], clause 6.6.

*Threat References*: TBD.

*Test Case*:

**Test Name:** TC\_AKMA context removal\_AAnF

**Purpose:**

Verify that AKMA context removal is correctly handled by the AAnF.

**Pre-Conditions:**

* Test environment with a UE containing its AKMA capabilities , AUSF, OAM, AF. The UE , AUSF, OAM, AF may be simulated.
* AAnF network product is connected in emulated/real network environment.
* AAnF stores the AKMA context of the UE after primary authentication.

**Execution Steps**

1. The OAM sends an Naanf\_AKMA\_Context\_Remove request to AAnF.

3) AAnF deletes AKMA Context (e.g. SUPI, A-KID and KAKMA) from its local database base on the SUPI.

4) AAnF sends a Naanf\_AKMA\_Context\_Remove response to OAM.

**Expected Results:**

The tester cannot find the AKMA context of the SUPI in AAnF. Evidence suitable for the interface, e.g., Screenshot containing the operational results.

\*\*\*\*\*\*\*\*\*\*\*\*\*End of Change \*\*\*\*\*\*\*\*\*\*\*\*\*\*