**3GPP TSG-SA3 Meeting #103-e *S3-211606r2***

**e-meeting, 17 – 28 May 2021** Revision of S3-20xxxx

**Source: Huawei, HiSilicon**

**Title: pCR – Evaluation of solution #3**

**Document for: Approval**

**Agenda Item: 5.7 FS\_UAS\_SEC**

# 1 Decision/action requested

***Approve the proposed text evaluating solution #3 for TR33.854***

# 2 References

[1]

# 3 Rationale

This contribution proposes to add evaluation text to solution #3.

# 4 Detailed proposal

pCR

\*\*\* BEGINNING OF CHANGES \*\*\*

### 6.3.3 Solution evaluation

 This solution is aligned with TR 23.754 [3] conclusions for UAV authentication and authorization by USS/UTM (UUAA) during Registration, including the usage of a generic (API based) procedure using a UAS NF.

This solution fully addresses the requirements of Key Issue #1:

• The solution uses a generic (i.e., API based) procedure for UUAA during Registration via a Proxy A&A (UAS NF). The UE includes its CAA-level UAV ID to register for UAS services. After a successful primary authentication, the AMF triggers a UUAA if the UE has a valid Aerial subscription and if there is no UUAA ongoing or a valid result from a successful prior UUAA run. The AMF triggers UUAA after sending a Registration Accept message indicating a pending UUAA. The authentication method and content of authentication message used for UUAA are not in 3GPP scope.

• The solution enables the revocation of UAV authorization by the USS/UTM. The revocation request is received by the UAS NF which notifies the AMF. AMF may trigger a PDU Session release for the relevant PDU Sessions (used for communication USS/UTM and/or for C2 communications) and/or a DeRegistration procedure.

• Authentication of USS/UTM is handled by the Proxy A&A function by means of provisioned aviation domain certificates. USS/UTM address may be obtained from UE or from a trusted resolution function which provides a USS/UTM address based on a CAA-level UAV ID.

~~Editor’s Note: Further evaluation is FFS for usage of generic (i.e. API based) authentication and authorization procedure compared to EAP mechanism~~

~~• As opposed to a solution based on the EAP framework,~~

API based procedure introduces a new mechanism compared to existing EAP framework. NOTE: Usage of API based is used to address an explicit requirement from the UTM community

NOTE: How and whether to protect the transparent containers used for UAV-USS communication during UUAA will be determined during the normative phase

NOTE: IETF/3GPP protocols are readily available for EAP based mechanism to protect the transparent containers.

\*\*\* END OF CHANGES \*\*\*