**3GPP TSG-SA3 Meeting #108adhoc-e *S3-222539-r1***

**e-meeting, 10 - 14 October 2022**

**Source:**  **Huawei, HiSilicon**

**Title:** **New solution for SBA security in the IMS control plane**

**Document for: Approval**

**Agenda Item: 5.15**

# 1 Decision/action requested

***It is proposed to approve the solution described in this document.***

# 2 Rationale

It is proposed to reuse the mechanism defined in TS 33.501 to protect the service based interfaces in IMS.

# 3 Detailed proposal

\*\*\* 1st CHANGE \*\*\*

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TR 23.700-87: "Study on system architecture enhancement for next generation real time communication".

[3] 3GPP TS 33.328: "IP Multimedia Subsystem (IMS) media plane security".

[a] 3GPP TS 33.501: "Security architecture and procedures for 5G system".

\*\*\* END OF 1st CHANGE\*\*\*

\*\*\* 2nd CHANGE \*\*\*

## 6.A Solution #A: Service based interface protection in media control plane

### 6.A.1 Introduction

This solution propose to reuse the security mechanisms defined for 5GC to protect the service based interface in IMS media control plane.

### 6.A.2 Solution details

#### 6.A.2.1 Protection at the network or transport layer

All service based network functions in IMS media control plane shall support protection in network or transport layer as specified in clause 13.1.0 of TS 33.501 [a].

#### 6.A.2.2 Authentication and authorization

All service based network functions in IMS media control plane and NRF shall support either static authorization as specified in clause 13.3.0, clause 13.3.3.1 and clause 13.3.2.1 of TS 33.501 [a] or OAuth 2.0 based authorization as specified in clause 13.4.1.1 TS 33.501 [a].

NOTE: It is assumed that slice related aspects or indirect communication using SCP are not applicable in IMS.

### 6.A.3 Evaluation

The solution meets the security requirements of KI#3.

\*\*\* END OF 2nd CHANGE\*\*\*