**3GPP TSG-SA3 Meeting #119 S3-245228-r1 merger of 4835 and 4834**

Orlando, US, 11 -15 November 2024

**Source: Huawei, HiSilicon**

**Title: Adding evaluation to solution #4**

**Document for: Approval**

**Agenda Item: 5.19**

# 1 Decision/action requested

***Approve the pCR proposal for TR 33.700-22***

# 2 References

[1] 3GPP TR 33.700-22

# 3 Rationale

This contribution provides evaluation to the solution #4 and addresses one evaluation EN.

# 4 Detailed proposal

pCR

\*\*\* START OF CHANGES \*\*\*

## 6.4 Solution #4: resource owner authorized revocation

### 6.4.1 Introduction

This solution addresses the "Key Issue #1.2: Resource owner authorization management ". The resource owner (RO) authorization is based on the RNAA procedure specified in TS 33.122 [4]. For the RO revocation, this solution extends the procedure in the

TS 33.122 [4], where it is stated

*CCF can receive a revocation request message from the resource owner via the UE, resource owner function, web page etc.*

Specifically, in this solution, the revocation request message is described to complete the revocation procedure, given the CAPIF-8 reference point and relevant procedure is specified in the present document.

### 6.4.2 Solution details

#### 6.4.2.1 Authorization procedure

The procedure for authorization of resource owner follows the RNAA procedure as specified in clause 6.5.3 of TS 33.122 [2]. Specifically, the API invoker sends an access token request message to the CCF and the CCF issues the token with GPSI after checking specific to the authorization flow used. For example, the CCF may request RO authorization based on RFC 6794 if the authorization code flow is used.

#### 6.4.2.2 Revocation procedure

The procedure for revoking API invoker authorization initiated by the resource owner through the resource owner function (ROF) is given below, extended from the procedure specified in clause 6.5.3.4 of TS 33.122 [4]:

1. The resource owner may trigger token revocation through the ROF. The ROF sends an authorization revocation request message to the CCF. The message shall include the service API ID, the GPSI, and other information related to the revoked token (e.g., the scope info).

NOTE: the GPSI is the identifier of the resource owner.

2. With reference to step 2 in clause 8.23.4 of TS 23.222 [3], the request message includes in addition the GPSI of the UE, on which the ROF resides.

3. With reference to step 3 in clause 8.23.4 of TS 23.222 [3], the AEF may additionally determine whether to update the resource due to revocation, e.g., the API invoker is using the resource (i.e., QoS) that should be revoked after token revocation for the QoS service API, the AEF may inform PCF/SMF to modify the QoS level of corresponding PDU sessions after revocation.

4. The same as the step 4 in clause 8.23.4 of TS 23.222 [3].

5. Similar to the step 5 in clause 8.23.4 of TS 23.222 [3], the difference is invalidated authorization here is API invoker authorization for the resource owner/UE corresponding to the GPSI.

6. Similar to the step 6 in clause 8.23.4 of TS 23.222 [3], the difference is that the message is sent to the ROF.



Figure 6.4.2-1: Revocation procedure for initiated through ROF

### 6.4.3 Evaluation

This solution addresses the requirements of Key Issue #1.2.

This solution has two separate procedures for authorization and revocation.

This solution reuses the authorization procedure specified in clause 6.5.3 in the TS 33.122 [4] and extends the revocation procedure in clause 6.5.3.4 in TS 33.122 [4] to include steps related to CAPIF-8 interface. Therefore no impact is introduced by the authorization procedure. As to the revocation procedure, the ROF will send a revocation request message to the CCF and receives the corresponding revocation response message. In addition, AEF may determine whether to update the resource due to revocation, if yes, the AEF may send a message to the PCF/SMF to modify the QoS level.A short-lived token can be an alternative solution. As comparison with the alternative solution, this solution can provide revocation immediately and avoid frequent refreshing of token.

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