**3GPP TSG-SA3 Meeting #119 S3-245220 merger of 4832 and 4833**

Orlando, US, 11 -15 November 2024

**Source: Huawei, HiSilicon**

**Title: Updates to solution #2**

**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 udpates to the solution #2.

# 4 Detailed proposal

pCR

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

## 6.2 Solution #2: CAPIF-8 reference point security

### 6.2.1 Introduction

This solution addresses "Key Issue #1.1: CAPIF-8 reference point ".

The resource owner function (ROF) interacts with the authorization function (AzF) in the CAPIF core function (CCF) through the CAPIF-8 reference point. This solution proposes mutual authentication between the ROF and AzF. Besides, the messages exchanged between them are protected with integrity protection, replay protection and confidentiality protection.

NOTE: The AzF is part of the CCF and is used interchangeably with the CCF.

### 6.2.2 Solution details

#### 6.2.2.1 Mutual authentication

For authentication between a ROF and an AzF/CCF, mutual authentication based on TLS is proposed. The CCF is authenticated by the CCF certificates. The certificate profiles follow the TS 33.310 [6], clause 6.1.3a. The ROF authentication can be based on the ROF certificate, the pre-shared key or password etc., and is left for implementation..

NOTE: The structure of the PKI used for the certificate is out of scope of the present document.

#### 6.2.2.2 Protection of messages between ROF – AzF/CCF

TLS is used to provide integrity protection, replay protection and confidentiality protection for the CAPIF-8 interface.

The security profiles for TLS implementation and usage follow the provisions given in clause 6.2 of TS 33.210 [7].

### 6.2.3 Evaluation

The solution addresses the requirements of Key Issue #1.1.

TLS based mutual authentication is performed between the ROF and the CCF to establish a secure channel. The security protections for all messages transmitted through the channel include integrity protection, confidentiality protection and. replay protection.

The solution assumes the ROF can handle the credentials. It does not cover recovery in case ROF loses its credentials.\*\*\* END OF CHANGES \*\*\*