**3GPP TSG-SA WG6 Meeting #61 S6-242332**

**Jeju, Republic of Korea 20th – 24th May 2024 (revision of S6-242040)**

**Source: ZTE Corporation**

**Title: New Solution for KI#1: Access Control Management for Service API**

**Spec: 3GPP TR 23.700-22 v0.2.0**

**Agenda item: 8.7**

**Document for: Approval**

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**1. Introduction**

The Key issue 1 includes the following open issues:

|  |
| --- |
| 1. How to align and manage access control that is more granular than simply granted/denied for service API (e.g., service operation level, resource level) with the provided resource owner consent to ensure appropriate usage of resource owner consent at the enabler layer.
 |

This paper provides a new solution related to access control management for service API.

**2. Reason for Change**

To support the finer granularity access control for service API, some enhancements on API invocation procedure is necessary.

**3. Conclusions**

<Conclusion part (optional)>

**4. Proposal**

It is proposed to agree the following changes to 3GPP TR 23.700-22.

\* \* \* First Change \* \* \* \*

## 6.1 Mapping of solutions to key issues

Table 6.1-1 Mapping of solutions to key issues

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | KI #1 | KI #2 | KI #3 | KI #4 | KI #5 | KI #6 | KI #7 |
| Sol #1 |  |  | X |  |  |  |  |
| Sol #2 | X |  |  |  |  |  |  |
| Sol #3 | X |  |  |  |  |  |  |
| Sol #4 |  |  |  | X |  |  |  |
| Sol #5 |  |  |  |  | X |  |  |
| Sol #6 | X |  |  |  |  |  |  |

\* \* \* 2nd Change (all texts are new) \* \* \* \*

## 6.x Solution #x: Access Control Management of Service API

### 6.x.1 Solution description

#### 6.x.1.1 General

This solution is for Key issue #1 to give a description of the service API invocation procedure based on authorization for granular service access.

In current specification, the API invoker will firstly obtain the access permission for service API by the procedure for obtaining authorization to access the service API, and secondly trigger the corresponding service API invocation procedure. If finer granularity access permission is obtained, the subsequent service API invocation over CAPIF-2/2e by API invoker on the AEF should also comply with the received authorization.

#### 6.x.1.2 Impact to existing CAPIF procedures

The CAPIF procedure in 3GPP TS 23.222 [2] can be enhanced as follows.

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8.x Service API invocation based on authorization for granular service accessThe API invoker performs the authorization based on granular service access (e.g., per service API or per service operation or per service resource). The subsequent service API invocation over CAPIF-2/2e by API invoker on the AEF should comply with the received authorization. |

### 6.x.2 Architecture Impacts

This solution is based on the existing CAPIF architecture in 3GPP TS 23.222.

### 6.x.3 Corresponding APIs

This solution impacts the CAPIF Security API defined in clause 10.6 of 3GPP TS 23.222.

### 6.x.4 Solution evaluation

The coordination with SA3 is needed to align the information flows and procedures in 3GPP TS 33.122.

\* \* \* End of Changes \* \* \* \*