**3GPP TSG-SA3 Meeting #105-e *S3-214237-r1***

e-meeting, 8 - 19 November 2021 (revision of S3-yyxxxx)

**Source: Samsung**

**Title: New WID on Security enhancement of SEAL**

**Document for: Approval**

**Agenda Item: 4.25**

3GPP™ Work Item Description

Information on Work Items can be found at <http://www.3gpp.org/Work-Items>   
See also the [3GPP Working Procedures](http://www.3gpp.org/specifications-groups/working-procedures), article 39 and the TSG Working Methods in [3GPP TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm)

Title: Security enhancement for SEAL

Acronym: eSEAL

Unique identifier: TBA

Potential target Release: Rel-17

# 1 Impacts

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Affects: | UICC apps | ME | AN | CN | Others (specify) |
| Yes |  | X |  | X |  |
| No |  |  | X |  |  |
| Don't know | X |  |  |  | X |

# 2 Classification of the Work Item and linked work items

## 2.1 Primary classification

### This work item is a …

|  |  |
| --- | --- |
| X | Feature |
|  | Building Block |
|  | *Work Task* |
|  | Study Item |

## 2.2 Parent Work Item

|  |  |  |  |
| --- | --- | --- | --- |
| Parent Work / Study Items | | | |
| Acronym | Working Group | Unique ID | Title (as in 3GPP Work Plan) |
| eSEAL | SA6 | 900024 | Enhanced Service Enabler Architecture Layer for Verticals |

### 2.3 Other related Work Items and dependencies

|  |  |  |
| --- | --- | --- |
| Other related Work /Study Items (if any) | | |
| Unique ID | Title | Nature of relationship |
| 820027 | Service Enabler Architecture Layer for Verticals | Rel-16 SA6 work item on SEAL |

# 3 Justification

A substantial justification appears in the work item description for the parent feature in SP-200987 and applies to this building block work item description. In Rel-17, SA6 working group has initiated work on application layer support for more verticals namely - Unmanned Aerial System (UASAPP) in TS 23.255, MSGin5G Service (5GMARCH) in TS 23.554, in addition to the enhancements to V2X (eV2XAPP) in TS 23.286. These work have identified the need for enhancements to SEAL. As SEAL architecture is evolved, SEAL security architecture and procedure needs to be aligned respectively.

Therefore, SA3 needs to address the security procedures or enhancements based on the Release-17 updates to SA6 specification TS 23.434 “Service Enabler Architecture Layer for Verticals (SEAL); Functional architecture and information flows”.

# 4 Objective

This work item will address the SA3 normative security work for the SEAL architecture based on the output of SA6 as specified in TS 23.434, as follows:

* Transport security for the newly defined LWP-x reference points when CoAP is used to support constrained devices.
* Protocol to provide end-to-end security for CoAP messages at the application layer.
* Updating the existing user authentication and authorization procedure (as defined in TS 33.434) further to support end-to-end security for CoAP messages.

# 5 Expected Output and Time scale

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| New specifications {One line per specification. Create/delete lines as needed} | | | | | |
| Type | TS/TR number | Title | For info  at TSG# | For approval at TSG# | Rapporteur |
|  |  |  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Impacted existing TS/TR {One line per specification. Create/delete lines as needed} | | | |
| TS/TR No. | Description of change | Target completion plenary# | Remarks |
| TS 33.434 | Security aspects of Service Enabler Architecture Layer (SEAL) for verticals | SA#94-e (Dec 2021) |  |

# 6 Work item Rapporteur(s)

Rajavelsamy Rajadurai, Samsung, rajvel@samsung.com

# 7 Work item leadership

SA3

# 8 Aspects that involve other WGs

SA6 and CT1 will need to refer to the updated SA3 Specification for newly defined procedures.

# 9 Supporting Individual Members

|  |
| --- |
| Supporting IM name |
| Samsung |
| Ericsson |
| Huawei |
| HiSilicon |
|  |
|  |