**3GPP TSG-CT WG1 Meeting #130-eC1-213487**

**E-meeting, 20-28 May 2021**

**Source: Samsung**

**Title: New WID on enhanced Service Enabler Architecture Layer for Verticals**

**Document for: Approval**

**Agenda Item: xxx**

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: Enhanced Service Enabler Architecture Layer for Verticals

## Acronym: eSEAL

## Unique identifier: *{A number to be provided by MCC at the plenary}*

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

|  |  |
| --- | --- |
|  | Feature |
| X | 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 Items (if any) |
| Unique ID | Title | Nature of relationship |
| 910019 | CT aspects of Enhanced application layer support for V2X services | eV2XAPP stage-3 work  |
| TBD | CT Aspects of Application Layer Support for Uncrewed Aerial Systems (UAS) | UASAPP stage-3 work |

**Dependency on non-3GPP (draft) specification**: none.

## 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-16, stage 3 aspects for SEAL are specified in TS 24.544, TS 24.545, TS 24.546, TS 24.547, TS 24.548 and TS 29.549. 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.

CT group needs to define protocol aspects of the service enabler architecture based on normative stage 2 specifications developed by 3GPP SA6 group.

## 4 Objective

To define the protocol aspects of SEAL based upon the normative Stage 2 technical specifications developed by SA6.

For CT1, the expected work includes:

a) enhancements to the service enabler architecture layer for verticals (SEAL) layer protocols for SEAL-Uu and SEAL-PC5, as mentioned below:

1) To obtain a list of UE(s), and the location information of each UE;

2) ;

3) Group management support for 5G-VN groups;

4) Group management enhancements to add VAL service specific data;

5) Service identification in location management procedures;

6) Location-based group creation;

7) Location report timestamp support;

8) Group list fetch procedure;

9) Group management enhancements to control notification and group communication messages;

10) Off-network location management;

b) to define protocol for SEAL-UU interfaces for Network slice capability management based on normative stage-2 work developed in 3GPP TS 23.434;

c) Light-weight Protocol (LWP) support.

For CT3, the expected work includes:

a) enhancement of APIs provided by the SEAL server for SEAL-S, SEAL-E and SEAL-X, as mentioned below:

1) Event Monitoring;

2) Location Area Info Retrieval API;

3) Monitoring Location Deviation procedure;

4) Location-based group creation;

5) Support supplementary location information;

b) to define protocol for SEAL-S interfaces for Network slice capability management based on normative stage-2 work developed in 3GPP TS 23.434.

NOTE 1: The list of expected work will be updated when further new stage 2 normative requirements are added.

NOTE 2: Services/features applicable to multiple verticals (as per TS 23.434) will be specified in this WID, and the usage of these services/features and the vertical specific clarifications will be specified in respective verticals WIDs.

## 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 |
| TS | 24.ab1 | Network slice capability management SEAL service; Protocol Specifications;  | TSG CT #94 (Dec 2021) | TSG CT #95 (March 2022) | CT1The TS will define the SEAL protocol specifications for Network slice capability management.Rapporteur:Roozbeh Atarius (Lenovo, Motorola Mobility)ratarius@motorola.com |

|  |
| --- |
| **Impacted existing TS/TR** *{One line per specification. Create/delete lines as needed}* |
| TS/TR No. | Description of change  | Target completion plenary# | Remarks |
| 24.544 | Update to group management SEAL service protocol | TSG CT #95 (March 2022) | CT1 |
| 24.545 | Update to location management SEAL service protocol | TSG CT #95 (March 2022) | CT1 |
| 24.546 | Possible update to configuration management SEAL service protocol | TSG CT #95 (March 2022) | CT1 |
| 24.547 | Possible update to identity management SEAL service protocol | TSG CT #95 (March 2022) | CT1 |
| 24.548 | Update to network resource management SEAL service protocol | TSG CT #95 (March 2022) | CT1 |
| 29.549 | Update to the SEAL service | TSG CT #95 (March 2022) | CT3 |

## 6 Work item Rapporteur(s)

Sapan Shah (Samsung Electronics), sapan.shah@samsung.com

## 7 Work item leadership

CT1

## 8 Aspects that involve other WGs

SA6 for the architectural aspects, and SA3 for the security aspects

## 9 Supporting Individual Members

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| --- |
| Supporting IM name |
| Samsung |
| AT&T |
| China Mobile |
| Convida Wireless |
| FirstNet |
| Kontron Transportation France |
| Lenovo |
| Motorola Mobility |
| Qualcomm Incorporated |
| NTT |
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