**3GPP TSG-CT WG1 Meeting #138-eC1-225985r1**

**E-Meeting, 10th – 14th October 2022**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  |  | **CR** |  | **rev** |  | **Current version:** |  |  |
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| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME | **x** | Radio Access Network |  | Core Network | **x** |

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| ***Title:*** | 24.545 terms alignment and some editorial changes | | | | | | | | | |
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| ***Source to WG:*** | China Mobile | | | | | | | | | |
| ***Source to TSG:*** | CT1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eSEAL | | | | |  | ***Date:*** | | | 2022-09-26 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | F |  | | | | | ***Release:*** | | | Rel-17 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
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| ***Reason for change:*** | | Several different terms with the same meaning are used in TS24.545, e.g. SEAL location management client and SEAL Location Management Client. This CR is proposed to solve this issue. “Location Management Client” and “Location Management Server” is used for the SLM-C and SLM-S respectively; and “location management client”/“location management server” is used for the related capability/functionality.  Some editorial changes are also proposed. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | 24.545 terms alignment  Backwards compatibility analysis:  The change doesn’t impact the behaviors or signallings. Thus there is no backwards compatible issue based on the change of this CR. | | | | | | | | |
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| ***Consequences if not approved:*** | | Different terms with the same meaning are used in TS24.545 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 3.2, 6.2.1.3, 6.2.2.5, 6.2.3.2, 6.2.3.3, 6.2.4.3, 6.2.5.3, 6.2.7.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **x** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **x** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **x** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Change 1\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

## 3.2 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [1].

SCEF Service Capability Exposure Function

SEAL Service Enabler Architecture Layer for Verticals

SLM-C SEAL Location Management Client

SLM-S SEAL Location Management Server

VAL Vertical Application Layer

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Change 2\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#### 6.2.1.3 Authenticated identity in CoAP request

Upon receiving a CoAP request, the SLM-S shall authenticate the identity of the sender of the CoAP request as specified in 3GPP TS 24.547 [6], and if authentication is successful, the SLM-S shall use the identity of the sender of the CoAP request as an authenticated identity.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Change 3\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#### 6.2.2.5 SLM server CoAP procedure

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Change 4\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#### 6.2.3.2 SLM server HTTP procedure

If the SLM-S needs to request the SLM-C to report its location, the SLM-S shall generate an HTTP POST request according to procedures specified in IETF RFC 7231 [16]. The SLM-S:

a) shall include a Request-URI set to the URI corresponding to the identity of the SLM-C;

b) shall include an Accept header field set to "application/vnd.3gpp.seal-location-info+xml";

c) shall include a Content-Type header field set to "application/vnd.3gpp.seal-location-info+xml";

d) shall include an application/vnd.3gpp.seal-location-info+xml MIME body and in the <location-info> root element:

1) shall include a <requested-identity> element with a <VAL-user-id> child element set to the identity of the VAL user whose location is requested;

2) shall include a <request> element; and

e) shall send the HTTP POST request as specified in IETF RFC 7231 [16].

NOTE: Push notification service can be used to send HTTP POST request to the client. Details about the push notification service are out of scope this specification.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Change 5\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#### 6.2.3.3 SLM client CoAP procedure

Upon receiving a CoAP GET request where the CoAP URI of the CoAP GET request identifies the location resource as specified in Annex B.4.1.2.2.3.1, and containing:

a) an Accept option set to "application/vnd.3gpp.seal-location-info+cbor",

the SLM-C shall generate a CoAP 2.05 (Content) response according to IETF RFC 7252 [21]. In the CoAP 2.05 (Content) response message, the SLM-C:

a) shall include a Content-Format option set to "application/vnd.3gpp.seal-location-info+cbor";

b) shall include a "LocationReport" object:

1) shall include a "locInfo" object containing the location information; and

c) shall send the CoAP 2.05 (Content) response towards the SLM-S.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Change 6\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#### 6.2.4.3 SLM client CoAP procedure

Upon receiving a request from a VAL user to obtain the location information of another VAL user, the SLM-C shall:

a) if trigger configuration is provided, send a CoAP FETCH request according to procedures specified in IETF RFC 8132 [24] to SLM-S to observe the location information of another VAL user; and

b) otherwise, send a CoAP GET request according to procedure specified in IETF RFC 7252 [21] to SLM-S to retrieve the location information of another VAL user.

In the CoAP FETCH request, the SLM-C shall:

a) set the CoAP URI identifying the location information to be observed according to the resource definition in Annex B.3.1.2.4.3.1;

1) the "apiRoot" is set to the SLM-S URI;

b) include an Accept option set to "application/vnd.3gpp.seal-location-info+cbor";

c) set an Observe option to 0 (Register);

d) set a Content-Format option set to "application/vnd.3gpp.seal-location-configuration+cbor";

e) include a "LocationReportConfiguration" object:

1) shall include a "valTgtUes" object set to the identity of the observed VAL users;

2) shall include a "locationType" attribute which is requested; and

3) shall include at least one of the following:

i) a "triggeringCriteria" object which provides the triggers for the SLM-C to request a location report as described in Annex X; and

ii) a "minimum-interval-length" attribute specifying the minimum time between consecutive reports. The value is given in seconds; and

f) shall send the request protected with the relevant ACE profile (OSCORE profile or DTLS profile) as described in 3GPP TS 24.547 [6].

In the CoAP GET request, the SLM-C shall:

a) set the CoAP URI identifying the location information to be fetched according to the resource definition in Annex B.3.1.2.4.3.2;

1) the "apiRoot" is set to the SLM-S URI; and

2) the "val-tgt-ue" query option is set to either the VAL user identity or VAL UE identity for which the location is requested;

b) include an Accept option set to "application/vnd.3gpp.seal-location-info+cbor"; and

c) send the request protected with the relevant ACE profile (OSCORE profile or DTLS profile) as described in 3GPP TS 24.547 [6].

Upon receiving a CoAP 2.05 (Content) response from the SLM-S containing:

a) a Content-Format option set to "application/vnd.3gpp.seal-location-info+cbor"; and

b) including one or more "LocationReport" objects,

the SLM-C:

a) shall store the content of the received "LocationReport" object(s).

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Change 7\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#### 6.2.5.3 VAL Server procedure

The VAL Server (or authorized VAL user) may cancel the location reporting triggers configuration for the SLM-C by generating an HTTP POST request message according to procedures specified in IETF RFC 7231 [16]. The VAL server:

a) shall include a Request-URI set to the URI corresponding to the identity of the SLM-S;

b) shall include a Content-Type header field set to "application/vnd.3gpp.seal-location-info+xml";

c) shall include an application/vnd.3gpp.seal-location-info+xml MIME body and in the <location-info> root element:

1) shall include a <VAL-user-id> element set to the identity of the VAL user for location reporting event triggers configuration cancellation;

2) shall include a <configuration> element which shall not include any child element; and

d) shall send the HTTP POST request as specified in IETF RFC 7231 [16].

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Change 8\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#### 6.2.7.2 SLM server HTTP or SIP procedure

In order to notify the subscriber about the location information report, the SLM-S:

a) shall generate an application/vnd.3gpp.seal-location-info+xml MIME body containing:

1) an <identity> element with a <VAL-user-id> child element set to the identity of the VAL user which subscribed to location of another VAL user or VAL UE; and

2) a <notification> element which shall include:

i) an <identities-list> element with one or more <VAL-user-id> child elements set to the identities of the VAL users whose location information needs to be notified;

ii) a <trigger-id> element set to the value of each <trigger-id> value of the triggers that have been met; and

iii) a <reports> element containing one or more <loc-info-report> elements. The <loc-info-report> shall include:

A) a <VAL-user-id> element set to the identity of the VAL user whose location information needs to be notified; and

B) the latest location information corresponding to the VAL user; and

b) if SLM-C supports SIP, shall send a SIP NOTIFY request according to 3GPP TS 24.229 [5] and IETF RFC 6665 [11] with the constructed application/vnd.3gpp.seal-location-info+xml MIME body;

c) if SLM-C does not support SIP, shall send an HTTP POST request message to the SLM-C according to procedures specified in IETF RFC 7231 [16] with the constructed application/vnd.3gpp.seal-location-info+xml MIME body and an Content-Type header field set to "application/vnd.3gpp.seal-location-info+xml".