**3GPP TSG-CT WG1 Meeting #133e-bisC1-220333**

**E-meeting, 17-21 January 2022**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **24.545** | **CR** | **0040** | **rev** | **-** | **Current version:** | **17.1.0** |  |
|  | | | | | | | | |
| *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:*** | Updates to Location information subscription procedure | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Samsung | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eSEAL | | | | |  | ***Date:*** | | | 2022-01-10 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **C** |  | | | | | ***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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | In SA6 CR S6-202195, following text proposals are added in location information subscription procedure.  “the location management server may initiate location reporting configuration with the location management client of the UE for immediate reporting”  “The location management server may optionally subscribe for UE location information from 3GPP core network for the UE”  CT1 specification requires changes to align with SA6 specfication. | | | | | | | | |
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| ***Summary of change:*** | | Added steps for SLM-S – to initiate location reporting configuration with the client and subscribe for UE location information from 3GPP. | | | | | | | | |
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| ***Consequences if not approved:*** | | CT1 specification will not be aligned with SA6 specification. | | | | | | | | |
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| ***Clauses affected:*** | | 2, 6.2.6.2.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

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

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document in the same Release as the present document.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 23.003: "Numbering, addressing and identification".

[3] 3GPP TS 23.032: "Universal Geographical Area Description (GAD)".

[4] 3GPP TS 23.434: "Service Enabler Architecture Layer for Verticals (SEAL); Functional architecture and information flows".

[5] 3GPP TS 24.229: "IP multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); Stage 3".

[6] 3GPP TS 24.547: "Identity management - Service Enabler Architecture Layer for Verticals (SEAL); Protocol specification".

[7] IETF RFC 2616: "Hypertext Transfer Protocol -- HTTP/1.1".

[8] IETF RFC 3261 (June 2002): "SIP: Session Initiation Protocol".[9] IETF RFC 4825: "The Extensible Markup Language (XML) Configuration Access Protocol (XCAP)".

[10] IETF RFC 6050 (November 2010): "A Session Initiation Protocol (SIP) Extension for the Identification of Services"

[11] IETF RFC 6665 (July 2012): "SIP-Specific Event Notification".

[12] OMA OMA-TS-XDM\_Group-V1\_1\_1-20170124-A: "Group XDM Specification".

[13] IETF RFC 6750: "The OAuth 2.0 Authorization Framework: Bearer Token Usage".

[14] IETF RFC 3428 (December 2002): "Session Initiation Protocol (SIP) Extension for Instant Messaging".

[15] 3GPP TS 24.379: "Mission Critical Push To Talk (MCPTT) call control Protocol specification".

[r29122] 3GPP TS 29.122: "T8 reference point for northbound Application Programming Interfaces (APIs)".

\* \* \* Next Change \* \* \* \*

##### 6.2.6.2.2 HTTP based procedure

Upon receiving an HTTP POST request containing:

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

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

c) an application/vnd.3gpp.seal-location-info+xml MIME body with a <subscription> element included in the <location-info> root element;

the SLM-S:

a) shall determine the identity of the sender of the received HTTP POST request as specified in clause 6.2.1.1; and

1) if the identity of the sender of the received HTTP POST request is not authorized to subscribe location information of another VAL user or VAL UE, shall respond with a HTTP 403 (Forbidden) response to the HTTP POST request and shall skip rest of the steps;

2) shall support handling an HTTP POST request from a SLM-C according to procedures specified in IETF RFC 4825 [9] "POST Handling";

3) may initiate location reporting configuration with the location management client of the UE for immediate reporting as specified in clause 6.2.3.2; and

4) may subscribe for the location of the UE as specified in clause 4.4.2.2.2 of 3GPP TS 29.122 [r29122];

b) shall store the expiry time for the subscription to the <expiry-time> value. If the expiry time value as present in <expiry-time> element is not acceptable to the SLM-S, the SLM-S may change the expiry time value to a lower value;

c) shall store the time interval value to the <time-interval-length> element. if the time interval value as present in <time-interval-length> element is not acceptable to the SLM-S, the SLM-S may change the time interval value to a lower value;

d) shall generate and assign a unique integer as subscription identifier to the subscription request received from VAL server;

e) shall store the users information contained in the <VAL-user-id> elements of <identities-list> element. If the VAL users whose location information is requested as present in <identities-list> element is not fully acceptable to the SLM-S, the SLM-S may change the VAL users to a subset and store the identities of the new VAL users;

f) shall generate an HTTP 200 (OK) response according to IETF RFC 2616 [7]. In the HTTP 200 (OK) message, the SLM-S:

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

i) a <subscription-identifier> element set to the unique subscription identifier which is assigned to the subscription request;

ii) an <expiry-time> element set to the accepted expiry time value; and

iii) if the VAL users whose location information is requested as present in <identities-list> element is not fully acceptable to the SLM-S, the SLM-S may change the VAL users to a subset and shall include an <identities-list> with one or more <VAL-user-id> child elements set to the identities of the new VAL users;

g) shall send the HTTP 200 (OK) message towards the VAL server according to IETF RFC 2616 [7];

h) shall start the timer TLM-1 (subscription expiry) and set the expiry time of the timer to the expiry time for the subscription; and

i) shall start the timer TLM-2 (notification interval) timer and set the internal time of the timer to the <time-interval-length> element value.

Upon receiving an HTTP POST request with an application/vnd.3gpp.seal-location-info+xml MIME body containing <subscription-identifier> element along with <expiry-time> element set to zero, the SLM-S:

a) shall delete all information related to subscription;

b) shall generate an HTTP 200 (OK) message according to IETF RFC 2616 [7]. In the HTTP 200 (OK) message, the SLM-S shall include an application/vnd.3gpp.seal-location-info+xml MIME body and in the <location-info> root element;

1) shall include a <subscription> element which shall include:

i) a <Subscription Identifier> element set to the unique subscription identifier which is assigned to the subscription request;

d) shall send the HTTP 200 (OK) message towards the VAL server according to IETF RFC 2616 [7];

e) shall stop TLM-1 (subscription expiry) timer if it is running; and

f) shall stop TLM-2 (notification interval) timer if it is running.

\* \* \* End of Change \* \* \* \*