**3GPP TSG-CT WG1 Meeting #133e-bisC1-22abcd**

**E-meeting, 17-21 Jauary 2022 (was C1-220294)**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **24.546** | **CR** | **0016** | **rev** | **1** | **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:***  | Addition of CoAP VAL UE configuration data procedures |
|  |  |
| ***Source to WG:*** | Ericsson |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | eSEAL |  | ***Date:*** | 2022-01-10 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***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 canbe 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)* |
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| ***Reason for change:*** | To introduce support for CoAP for SEAL Configuration Management, it is proposed to add CoAP alternative for VAL UE configuration data procedures, corresponding to HTTP alternative. |
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| ***Summary of change:*** | CoAP alternative for VAL UE configuration data procedures is added. |
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| ***Consequences if not approved:*** | SEAL CM does not support CoAP as required by stage 2. |
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| ***Clauses affected:*** | 6.2.2.1.3.2, 6.2.2.1.3.3, 6.2.3.1, 6.2.3.2, 6.2.3.x (new), 6.2.3.y (new) |
|  |  |
|  | **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 \* \* \* \*

###### 6.2.2.1.3.2 Create a subscription

In order to subscribe to changes of a configuration document the SCM-C shall send an extended CoAP GET request with the CoAP URI set to the URI of an observable configuration document and with the Observe option set to 0 (Register) as specified in IETF RFC 7641 [14].

Upon reception of such an extended CoAP request from SCM-C where the CoAP URI of the request points at an observable configuration document and with the Observe option set to 0 (Register), the SCM-S:

a) shall perform the steps as for a normal CoAP GET request for a configuration document as defined in clause 6.2.3.Y for VAL UE configuration and in clause 6.2.4.4 for VAL user profile;

b) shall register the SCM-C as an observer as per IETF RFC 7641 [14]; and

c) shall send a CoAP 2.05 (Content) response including the current content of the resource and the Observer option with the initial sequence number of the notifications.

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

###### 6.2.2.1.3.3 Delete a subscription

In order to unsubscribe from changes of a configuration document the SCM-C shall send a CoAP GET request matching the CoAP GET request used to create the subscription but with the Observe option set to 1 (Deregister) as specified in IETF RFC 7641 [14].

Upon reception of a CoAP GET that matches an active subscription but with the Observe option set to 1 (Deregister), the SCM-S:

a) shall perform the steps as for a normal CoAP GET request for a configuration document as defined in clause 6.2.3.Y for VAL UE configuration and in clause 6.2.4.4 for VAL user profile;

b) shall deregister the SCM-C as an observer as per IETF RFC 7641 [14]; and

c) shall send a CoAP 2.05 (Content) response including the current content of the resource and shall not include the Observer option.

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

#### 6.2.3.1 SCM client HTTP procedure

Upon receiving a request from the VAL user to retrieve a VAL UE configuration data, the SCM-C shall send an HTTP GET request to the SCM-S according to procedures specified in IETF RFC 4825 [3] "*Fetch a Document*". In HTTP GET request, the SCM-C:

a) shall set the Request-URI to a XCAP URI identifying the XML document to be retrieved. In the Request-URI:

1) the "XCAP Root" is set to the URI of the SCM-S;

2) the "auid" is set to specific VAL service identity; and

3) the document selector is set to a document URI pointing to the VAL UE configuration document;

b) shall include an Authorization header field with the "Bearer" authentication scheme set to an access token of the "bearer" token type as specified in IETF RFC 6750 [6]; and

c) may include the parameters specified in clause A.2.1 serialized into a JavaScript Object Notation (JSON) structure as specified in IETF RFC 7159 [7]

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

#### 6.2.3.2 SCM server HTTP procedure

Upon reception of an HTTP GET request where the Request-URI of the HTTP GET request identifies a UE configuration document as specified in the specific vertical application, the SCM-S:

a) shall determine the identity of the sender of the received HTTP GET request as specified in clause 6.2.1.1, and:

1) if the identity of the sender of the received HTTP GET request is not authorized to fetch requested configuration document, shall respond with a HTTP 403 (Forbidden) response to the HTTP GET request and skip rest of the steps; and

b) shall support handling an HTTP GET request from a SCM-C according to procedures specified in IETF RFC 4825 [3] "*GET Handling*".

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

#### 6.2.3.X SCM client CoAP procedure

Upon receiving a request from the VAL user to retrieve a VAL UE configuration data, the SCM-C shall send a CoAP GET request to the SCM-S. In the CoAP GET request, the SCM-C:

a) shall set the CoAP URI identifying the user profile document to be retrieved according to the resource API definition in Annex C.X.1:

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

2) the "valServiceId" is set to specific VAL service;

3) if the SCM-C does not know the "ueConfigDocId" of the UE configuration document at the SGM-S, the SCM-C shall make a GET request for the UE Configurations as described in Annex C.X.1.2.2.3.1 and shall set applicable query parameters defined in table C.X.1.2.2.3.1-1; and

4) if the SCM-C knows the "ueConfigDocId" of the UE configuration document at the SGM-S, the SCM-C shall make a GET request for the Individual UE Configuration as described in Annex C.X.1.2.3.3.1, and shall set "ueConfigDocId" to point to the VAL UE configuration document; and

b) shall send the request protected with the relevant ACE profile (OSCORE profile or DTLS profile) as described in 3GPP TS 24.547 [5].

Editor's note: The method to protect the request will be decided by SA3, and necessary alignment with SA3 is FFS.

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

#### 6.2.3.Y SCM server CoAP procedure

Upon reception of an CoAP GET request where the CoAP URI of the CoAP GET request identifies UE Configurations resource as described in Annex C.X.1.2.2.3.1, the SCM-S:

a) shall determine the identity of the sender of the received CoAP GET request as specified in clause 6.2.1.2, and:

1) if the sender is not authorized to fetch the requested UE configuration document(s), shall respond with a CoAP 4.03 (Forbidden) response to the CoAP GET request and skip rest of the steps;

b) shall support handling a CoAP GET request from a SCM-C according to procedures specified in IETF RFC 7252 [12]; and

c) shall search for the UE configuration documents for the given VAL service and the given values of the query parameters defined in table C.X.1.2.2.3.1-1 and:

1) shall return all the found documents in the 2.05 (Content) response; or

2) shall return a 4.04 (Not found) response if no document matching the given criteria was found.

Upon reception of an CoAP GET request where the CoAP URI of the CoAP GET request identifies Individual UE Configuration resource as described in Annex C.X.1.2.3.3.1, the SCM-S:

a) shall determine the identity of the sender of the received CoAP GET request as specified in clause 6.2.1.2, and:

1) if the sender is not authorized to fetch the requested UE configuration document, shall respond with a CoAP 4.03 (Forbidden) response to the CoAP GET request and skip rest of the steps;

b) shall support handling a CoAP GET request from a SCM-C according to procedures specified in IETF RFC 7252 [12]; and

c) shall determine the existence of the UE configuration document pointed at by the CoAP URI and:

1) shall return the document in the 2.05 (Content) response if the document is found; or

2) shall return a 4.04 (Not found) response if the document is not found.

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