**3GPP TSG-CT WG1 Meeting #133-eC1-217062**

**E-meeting, 11-19 November 2021 (was C1-217062)**

|  |
| --- |
| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **24.546** | **CR** | **0010** | **rev** | **1** | **Current version:** | **17.0.0** |  |
|  |
| *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)*.* |
|  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **x** | Radio Access Network |  | Core Network | **X** |

|  |
| --- |
|  |
| ***Title:***  | Addition of CoAP event subscription procedures |
|  |  |
| ***Source to WG:*** | Ericsson |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | eSEAL |  | ***Date:*** | 2021-11-04 |
|  |  |  |  |  |
| ***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)* |
|  |  |
| ***Reason for change:*** | To introduce support for CoAP for SEAL Configuration Management, it is proposed to add CoAP alternative for event subscription procedures, corresponding to SIP and HTTP alternatives. |
|  |  |
| ***Summary of change:*** | CoAP alternative for event subscription procedures are added. |
|  |  |
| ***Consequences if not approved:*** | SEAL CM does not support CoAP as required by stage 2. |
|  |  |
| ***Clauses affected:*** | 6.2.2.1.x (new), 6.2.2.1.x.1 (new), 6.2.2.1.x.2 (new), 6.2.2.1.x.3 (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.X CoAP based procedures

###### 6.2.2.1.X.1 General

CoAP based procedures shall use the mechanisms to observe a resource as specified in IETF RFC 7641 [rfc7641].

NOTE: CoAP "observe" mechanism uses the principle of eventual consistency where an intermediate state change can be lost when UDP is used. If it is critical for the client to receive every change in the resource state (and not just the latest state), TCP can be used to avoid missing notifications.

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

###### 6.2.2.1.X.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 [rfc7641].

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;

b) shall register the SCM-C as an observer as per IETF RFC 7641 [rfc7641]; 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.X.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 [rfc7641].

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;

b) shall deregister the SCM-C as an observer IETF RFC 7641 [rfc7641]; and

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

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