**3GPP TSG CT WG3 Meeting #137 *C3-245072***

**Hefei, CN, 14 - 18 October, 2024**

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.548** | **CR** | **0018** | **rev** | **-** | **Current version:** | **19.0.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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|  | | | | | | | | | | |
| ***Title:*** | SDD\_BDT Service operations | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson, Huawei | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | SEALDD\_Ph2 | | | | |  | ***Date:*** | | | 2024-09-20 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-19 |
|  | *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-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19) Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | SDD\_BDT API was intorduced in release 19 under SEALDD\_Ph2 WI in SA6. Thus, the SDD\_BDT service operation definition shall be introduced in Stage 3. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | This CR introduces the service operations of the SDD\_BDT API | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The Stage 2 requirements are not implemented in Stage 3. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.7(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 does not impact any OpenAPI file. | | | | | | | | |
| ***()*** | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

**Additional discussion(if needed):**

**Proposed changes:**

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

## 5.7 SDD\_BDT

### 5.7.1 Service Description

The SDD\_BDT service exposed by the SEALDD Server enables a service consumer to:

- subscribe/update/delete a SEALDD BDT Subscription; and

- receive BDT related event(s) notifications.

### 5.7.2 Service Operations

#### 5.7.2.1 Introduction

The service operations defined for the SDD\_BDT service are shown in table 5.7.2.1-1.

Table 5.7.2.1-1: SDD\_BDT Service Operations

|  |  |  |
| --- | --- | --- |
| Service Operation Name | Description | Initiated by |
| SDD\_BDT\_Subscribe | This service operation enables a service consumer to request the creation of a SEALDD BDT Subscription. | e.g., VAL Server |
| SDD\_BDT\_Update | This service operation enables a service consumer to request the update of an existing SEALDD BDT Subscription. | e.g., VAL Server |
| SDD\_BDT\_Delete | This service operation enables a service consumer to request the deletion of an existing SEALDD BDT Subscription. | e.g., VAL Server |
| SDD\_BDT\_Notify | This service operation enables a service consumer to receive BDT related event(s) notifications. | SEALDD Server |

#### 5.7.2.2 SDD\_BDT\_Subscribe

##### 5.7.2.2.1 General

This service operation is used by a service consumer to request the creation of a SEALDD BDT Subscription at the SEALDD Server.

The following procedures are supported by the "SDD\_BDT\_Subscribe" service operation:

- BDT Subscription Creation.

##### 5.7.2.2.2 BDT Subscription Creation

Figure 5.7.2.2.2-1 depicts a scenario where a service consumer sends a request to the SEALDD Server to request the creation of a SEALDD BDT Subscription (see also clause 9.11 of 3GPP°TS°23.433°[7]).

Figure 5.7.2.2.2-1: Procedure for BDT Subscription Creation

1. In order to create a new SEALDD BDT Subscription, the service consumer shall send an HTTP POST request to the SEALDD Server targeting the URI of the "BDT Subscriptions" collection resource, with the request body including the BdtSubscription data structure.

2a. Upon success, the SEALDD Server shall respond with an HTTP "201 Created" status code with the response body containing a representation of the created "Individual BDT Subscription" resource within the BdtSubscription data structure, and an HTTP "Location" header field containing the URI of the created resource.

2b. On failure, the appropriate HTTP status code indicating the error shall be returned and appropriate additional error information should be returned in the HTTP POST response body, as specified in clause 6.6.7.

#### 5.7.2.3 SDD\_BDT\_Update

##### 5.7.2.3.1 General

This service operation is used by a service consumer to request the update of an existing SEALDD BDT Subscription at the SEALDD Server.

The following procedures are supported by the "SDD\_BDT\_Update" service operation:

- BDT Subscription Update.

##### 5.7.2.3.2 BDT Subscription Update

Figure 5.7.2.3.2-1 depicts a scenario where a service consumer sends a request to the SEALDD Server to request the update of an existing SEALDD BDT Subscription (see also clause 9.11 of 3GPP°TS°23.433°[7]).



Figure 5.7.2.3.2-1: Procedure for SDD Subscription Update

1. In order to update an existing SEALDD BDT Subscription, the service consumer shall send an HTTP PUT/PATCH request to the SEALDD Server, targeting the URI of the corresponding "Individual BDT Subscription" resource, with the request body including either:

- the updated representation of the resource within the BdtSubscription data structure, in case the HTTP PUT method is used; or

- the requested modifications to the resource within the BdtSubscriptionPatch data structure, in case the HTTP PATCH method is used.

2a. Upon success, the SEALDD Server shall update the targeted "Individual BDT Subscription" resource accordingly and respond with either:

- an HTTP "200 OK" status code with the response body containing a representation of the updated "Individual BDT Subscription" resource within the BdtSubscription data structure; or

- an HTTP "204 No Content" status code.

2b. On failure, the appropriate HTTP status code indicating the error shall be returned and appropriate additional error information should be returned in the HTTP PUT/PATCH response body, as specified in clause 6.6.7.

#### 5.7.2.4 SDD\_BDT\_Delete

##### 5.7.2.4.1 General

This service operation is used by a service consumer to request the deletion of an existing SEALDD BDT Subscription at the SEALDD Server.

The following procedures are supported by the "SDD\_BDT\_Delete" service operation:

- BDT Subscription Deletion.

##### 5.7.2.4.2 BDT Subscription Deletion

Figure 5.7.2.4.2-1 depicts a scenario where a service consumer sends a request to the SEALDD Server to request the deletion of an existing SEALDD BDT Subscription (see also clause 9.11 of 3GPP°TS°23.433°[7]).



Figure 5.7.2.4.2-1: Procedure for SDD Subscription Deletion

1. In order to request the deletion of an existing SEALDD BDT Subscription, the service consumer shall send an HTTP DELETE request to the SEALDD Server targeting the URI of the corresponding "Individual BDT Subscription" resource.

2a. Upon success, the SEALDD Server shall respond with an HTTP "204 No Content" status code.

2b. On failure, the appropriate HTTP status code indicating the error shall be returned and appropriate additional error information should be returned in the HTTP DELETE response body, as specified in clause 6.6.7.

#### 5.7.2.5 SDD\_BDT\_Notify

##### 5.7.2.5.1 General

This service operation is used by a SEALDD Server to notify a previously subscribed service consumer on:

- BDT related event(s).

The following procedures are supported by the "SDD\_BDT\_Notify" service operation:

- BDT Notification.

##### 5.7.2.5.2 BDT Notification

Figure 5.7.2.5.2-1 depicts a scenario where the SEALDD Server sends a request to notify a previously subscribed service consumer on BDT related event(s) (see also clause 9.11 of 3GPP°TS°23.433°[7]).



Figure 5.7.2.5.2-1: Procedure for BDT Notification

1. In order to notify a previously subscribed service consumer on BDT related event(s), the SEALDD Server shall send an HTTP POST request to the service consumer with the request URI set to "{notifUri}", where the "notifUri" variable is set to the value received from the service consumer during the creation/update of the corresponding BDT Subscription using the procedures defined in clauses 5.7.2.2 and 5.7.2.3, and the request body including the BdtNotif data structure.

2a. Upon success, the service consumer shall respond to the SEALDD Server with an HTTP "204 No Content" status code to acknowledge the successful reception of the notification.

2b. On failure, the appropriate HTTP status code indicating the error shall be returned and appropriate additional error information should be returned in the HTTP POST response body, as specified in clause 6.6.7.

\* \* \* End of changes \* \* \* \*