**3GPP TSG-CT3 Meeting #112e C3-205048\_r1**

**E-Meeting, 04th – 13th November 2020**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.514** | **CR** | **0262** | **rev** | **1** | **Current version:** | **16.6.0** |  |
|  | | | | | | | | |
| *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:*** | Essential corrections and alignments | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | SBIProtoc16 | | | | |  | ***Date:*** | | | 2020-10-25 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-16 |
|  | *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:*** | | The following corrections and alignments are necessary:   * The "Resource URI" column of Table 5.3.1-1 should contain a "<relative URI below root>" instead of a full resource URI, as per the API TS skeleton provided in TS 29.501. Same for the "Custom operation URI" column of Table 5.3.2.4.1-1 and Table 5.3.3.4.1-1. * The "Notifications overview" table and the "Target URI" clause need to be updated to align with the SBI TS skeleton provided in TS 29.501. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | * Update the "Resource URI" column of Table 5.3.1-1 by replacing the full resource URI with the associated "<relative URI below root>", i.e. by removing the part "{apiRoot}/<apiName>/<apiVersion>". Similar update for the "Custom operation URI" column of Table 5.3.2.4.1-1 and Table 5.3.3.4.1-1. * Update the "Notifications overview" table and the "Target URI" clause to align with the updated SBI TS skeleton provided in TS 29.501. * Some additional editorial corrections to improve the text. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Necessary corrections are not applied. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4.1.1, 4.2.1, 5.3.1, 5.3.2.4.1, 5.3.3.4.1, 5.5.1, 5.5.2.2, 5.5.3.2, 5.5.4.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 does not impact OpenAPI specification files. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | Rev 1:   * Further align clause 5.5.2.2 and 5.5.3.2 with the SBI TS skeleton by replacing "Notification URI" by "Callback URI". | | | | | | | | |

\* \* \* Start of changes \* \* \* \*

4.1.1 Overview

The Npcf\_PolicyAuthorization Service, as defined in 3GPP TS 23.502 [3] and in 3GPP TS 23.503 [4], is provided by the Policy Control Function (PCF).

The Npcf\_PolicyAuthorization service authorises an AF request and creates policies as requested by the authorised NF service consumer for the PDU session to which the AF session is bound to. This service also allows the NF service consumer to subscribe/unsubscribe to notifications on events (e.g. access type change, PLMN change, usage report, access network information report).

\* \* \* Next changes \* \* \* \*

### 4.2.1 Introduction

Service operations defined for the Npcf\_PolicyAuthorization Service are shown in table 4.2.1-1.

Table 4.2.1-1: Npcf\_PolicyAuthorization Service Operations

|  |  |  |
| --- | --- | --- |
| Service Operation Name | Description | Initiated by |
| Npcf\_PolicyAuthorization\_Create | Determines and installs the policy according to the service information provided by an authorized NF service consumer. | AF, NEF |
| Npcf\_PolicyAuthorization\_Update | Determines and updates the policy according to the modified service information provided by an authorized NF service consumer. | AF, NEF |
| Npcf\_PolicyAuthorization\_Delete | Provides means to delete the application session context of the NF service consumer. | AF, NEF |
| Npcf\_PolicyAuthorization\_Notify | Notifies NF service consumers of the subscribed events. | PCF |
| Npcf\_PolicyAuthorization\_Subscribe | Allows NF service consumers to subscribe to the notifications of events. | AF, NEF |
| Npcf\_PolicyAuthorization\_Unsubscribe | Allows NF service consumers to unsubscribe from the notifications of events. | AF, NEF |

NOTE: The NEF and the AF use the Npcf\_PolicyAuthorization service in the same way. To improve the readability of the service procedures, only the AF is mentioned in the following subclauses.

\* \* \* Next changes \* \* \* \*

5.3.1 Resource Structure



**Figure 5.3.1-1: Resource URI structure of the Npcf\_PolicyAuthorization API**

Table 5.3.1-1 provides an overview of the resources and applicable HTTP methods.

**Table 5.3.1-1: Resources and methods overview**

|  |  |  |  |
| --- | --- | --- | --- |
| **Resource name** | **Resource URI** | **HTTP method or custom operation** | **Description** |
| Application Sessions | /app-sessions | POST | Npcf\_PolicyAuthorization\_Create. Creates a new Individual Application Session Context resource and may create the child Events Subscription sub-resource. |
| /app-sessions/pcscf-restoration | PcscfRestoration  (POST) | P-CSCF restoration. It indicates that P-CSCF restoration needs to be performed. |
| Individual Application Session Context | /app-sessions/{appSessionId} | PATCH | Npcf\_PolicyAuthorization\_Update. Updates an existing Individual Application Session Context resource. It can also update an Events Subscription sub-resource. |
| GET | Reads an existing Individual Application Session Context resource. |
| /app-sessions/{appSessionId}/delete | delete  (POST) | Npcf\_PolicyAuthorization\_Delete. Deletes an existing Individual Application Session Context resource and the child Events Subscription sub-resource. |
| Events Subscription | /app-sessions/{appSessionId} /events-subscription | PUT | Npcf\_PolicyAuthorization\_Subscribe. Creates a new Events Subscription sub-resource or modifies an existing Events Subscription sub-resource. |
| DELETE | Npcf\_PolicyAuthorization\_Unsubscribe.  Deletes an Events Subscription sub-resource. |

\* \* \* Next changes \* \* \* \*

5.3.2.4.1 Overview

**Table 5.3.2.4.1-1: Custom operations**

|  |  |  |  |
| --- | --- | --- | --- |
| **Operation name** | **Custom operation URI** | **Mapped HTTP method** | **Description** |
| PcscfRestoration | /app-sessions/pcscf-restoration | POST | The P-CSCF Restoration custom operation invokes P-CSCF restoration. It does not create an Individual Application Session Context resource. |

\* \* \* Next changes \* \* \* \*

##### 5.3.3.4.1 Overview

Table 5.3.3.4.1-1: Custom operations

|  |  |  |  |
| --- | --- | --- | --- |
| Operation name | Custom operation URI | Mapped HTTP method | Description |
| delete | /app-sessions/{appSessionId}/delete | POST | Npcf\_PolicyAuthorization\_Delete. Deletes an existing Individual Application Session Context resource and the child Events Subscription sub-resource. |

\* \* \* Next changes \* \* \* \*

5.5.1 General

Notifications shall comply to subclause 6.2 of 3GPP TS 29.500 [5] and subclause 4.6.2.3 of 3GPP TS 29.501 [6].

**Table 5.5.1-1: Notifications overview**

|  |  |  |  |
| --- | --- | --- | --- |
| **Notification** | **Callback URI** | **HTTP method or custom operation** | **Description (service operation)** |
| Event Notification | {notifUri}/notify | notify (POST) | PCF event notification. |
| Termination Request | {notifUri}/terminate | terminate (POST) | Request for termination of an Individual Application Session Context. |
| Notification about new 5GS Bridge | {notifUri}/new-bridge | new-bridge (POST) | Notification about new 5GS Bridge |

\* \* \* Next changes \* \* \* \*

5.5.2.2 Target URI

The Callback URI **"{notifUri}/notify"** shall be used with the callback URI variables defined in table 5.5.2.2-1.

**Table 5.5.2.2-1: Callback URI variables**

|  |  |  |
| --- | --- | --- |
| **Name** | **Data type** | **Definition** |
| notifUri | Uri | The Notification Uri as assigned within the Events Subscription sub-resource and described within the EventsSubscReqData type (see table 5.6.2.6-1). |

\* \* \* Next changes \* \* \* \*

5.5.3.2 Target URI

The Callback URI **"{notifUri}/terminate"** shall be used with the callback URI variables defined in table 5.5.3.2-1.

**Table 5.5.3.2-1: Callback URI variables**

|  |  |  |
| --- | --- | --- |
| **Name** | **Data type** | **Definition** |
| notifUri | Uri | The Notification Uri as assigned within the Individual Application Session Context resource and described within the AppSessionContextReqData Data type (see table 5.6.2.3-1). |

\* \* \* Next changes \* \* \* \*

5.5.4.2 Target URI

The Callback URI **"{notifUri}/new-bridge"** shall be used with the callback URI variables defined in table 5.5.4.2-1.

**Table 5.5.4.2-1: Callback URI variables**

|  |  |  |
| --- | --- | --- |
| **Name** | **Data type** | **Definition** |
| notifUri | Uri | It is locally configured in the PCF. |

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