**TSG-CT WG3 Meeting #111-e *C3-204xyz***

**E-Meeting, 19th– 28th August 2020 (Revision of C3-204199)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.523** | **CR** | **0030** | **rev** | **1** | **Current version:** | **15.3.0** |  |
|  | | | | | | | | |
| *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:*** | Resource URI for individual subscription | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5GS\_Ph1-CT | | | | |  | ***Date:*** | | | 2020-08-10 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-15 |
|  | *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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | In clause 4.2.2.2, the URI contained in the location header field for the created individual application session context resource is error.  In clause 5.6.1, the reference of Data type of Gpsi is error. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Correct above errors. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Incorrect resource URI for individual subscription which may cause misoperation. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4.2.2.2, 5.6.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 the OpenAPI file | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

**Additional discussion(if needed):**

**…**

**Proposed changes:**

\*\*\* 1st Change \*\*\*

#### 4.2.2.2 Creating a new subscription

Figure 4.2.2.2-1 illustrates the creation of a subscription.



Figure 4.2.2.2-1: Creation of a subscription

To subscribe to event notifications, the NF service consumer shall send an HTTP POST request with: "{apiRoot}/npcf-eventexposure/v1/subscriptions/" as request URI as shown in figure 4.2.2.2-1, step 1, and the "PcEventExposureSubsc" data structure as request body.

The "PcEventExposureSubsc" data structure shall include:

- identification of the policy events to subscribe as "eventSubs" attribute;

- indication of the UEs to which the subscription applies via:

a) identification of a group of UE(s) via a "groupId" attribute; or

b) identification of any UE by ommitting the "groupId" attribute.

- a URI where to receive the requested notifications as "notifUri" attribute; and

- a Notification Correlation Identifier assigned by the NF service consumer for the requested notifications as "notifId" attribute.

The "PcEventExposureSubsc" data structure may include:

- description of the event reporting information as "eventsRepInfo", which may include:

a) event notification method (periodic, one time, on event detection) as "notifMethod" attribute;

b) Maximum Number of Reports as "maxReportNbr" attribute;

c) Monitoring Duration as "monDur" attribute;

d) repetition period for periodic reporting as "repPeriod" attribute; and/or

e) immediate reporting indication as "immRep" attribute.

- if the supported feature "ExtendedSessionInformation" is supported, to filter the AF sessions for which the policy event report shall occur, the identification of the services one or more AF sessions may belong to as "filterServices" attribute, which may include per service identification:

a) a list of ethernet flows in the "servEthFlows" attribute; or

b) a list of IP flows in the "servIpFlows" attribute; and/or

c) an AF application identifier in the "afAppId" attribute.

- to filter the DNNs for which the policy event report shall occur, the identification of the DNNs in the "filterDnns" attribute; and

- to filter the S-NSSAIs for which the policy event report shall occur, the identification of the S-NSSAIs in the "filterSnssais" attribute.

If the PCF cannot successfully fulfil the received HTTP POST request due to the internal PCF error or due to the error in the HTTP POST request, the PCF shall send the HTTP error response as specified in subclause 5.7.

Upon successful reception of the HTTP POST request with "{apiRoot}/npcf-eventexposure/v1/subscriptions/" as request URI and "PcEventExposureSubsc" data structure as request body, the PCF shall create a new "Individual Policy Events Subscription" resource, shall store the subscription and shall send a HTTP "201 Created" response as shown in figure 4.2.2.2-1, step 2. The PCF shall include in the "201 Created" response:

- a Location header field; and

- an "PcEventExposureSubsc" data type in the payload body.

The Location header field shall contain the URI of the created individual application session context resource i.e. "{apiRoot}/npcf-eventexposure/v1/subscriptions/{subscriptionId}".

The "PcEventExposureSubsc" data type payload body shall contain the representation of the created "Individual Policy Events Subscription".

When the "monDur" attribute is included in the response, it represents a server selected expiry time that is equal or less than a possible expiry time in the request.

When the "immRep" attribute is included in the subscription and the subscribed policy control events are available, the PCF shall immediately notify the NF service consumer using the Npcf\_EventExposure\_Notify service operation, as described in subclause 4.2.4.2.

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

### 5.6.1 General

This subclause specifies the application data model supported by the API.

Table 5.6.1-1 specifies the data types defined for the Npcf\_EventExposure service based interface protocol.

Table 5.6.1-1: Npcf\_EventExposure specific Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Section defined | Description | Applicability |
| EthernetFlowInfo | 5.6.2.6 | Identification of an UL/DL ethernet flow. | ExtendedSessionInformation |
| IpFlowInfo | 5.6.2.7 | Identification of an UL/DL IP flow. | ExtendedSessionInformation |
| PcEvent | 5.6.3.3 | Policy Control Events. |  |
| PcEventExposureSubsc | 5.6.2.2 | Represents an Individual Policy Events Subscription resource. |  |
| PcEventExposureNotif | 5.6.2.3 | Describes notifications about Policy Control events that occurred in an Individual Policy Events Subscription resource. |  |
| PcEventNotification | 5.6.2.8 | Represents the information reported for a Policy Control event. |  |
| PduSessionInformation | 5.6.2.9 | Represents PDU session identification information. | ExtendedSessionInformation |
| ReportingInformation | 5.6.2.4 | Represents the type of reporting the subscription requires. |  |
| ServiceIdentification | 5.6.2.5 | Identification of the service to which the subscription applies. | ExtendedSessionInformation |

Table 5.6.1-2 specifies data types re-used by the Npcf\_EventExposure service based interface protocol from other specifications, including a reference to their respective specifications and when needed, a short description of their use within the Npcf\_EventExposure service based interface.

Table 5.6.1-2: Npcf\_EventExposure re-used Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Reference | Comments | Applicability |
| AccessType | 3GPP TS 29.571 [14] | Access Type. |  |
| AfAppId | 3GPP TS 29.514 [12] | AF application Identifier. | ExtendedSessionInformation |
| AnGwAddress | 3GPP TS 29.514 [12] | Carries the control plane address of the EPC untrusted non-3GPP access network gateway. (NOTE) |  |
| DateTime | 3GPP TS 29.571 [14] | Time stamp. |  |
| Dnn | 3GPP TS 29.571 [14] | Identifies a DNN. |  |
| DurationSec | 3GPP TS 29.571 [14] | Seconds of duration. |  |
| EthFlowDescription | 3GPP TS 29.514 [12] | Identifies an ethernet flow description. | ExtendedSessionInformation |
| FlowDescription | 3GPP TS 29.514 [12] | Identifies an IP flow description. | ExtendedSessionInformation |
| Gpsi | 3GPP TS 29.571 [14] | Generic Public Subscription Identifier. |  |
| GroupId | 3GPP TS 29.571 [14] | Identifies a group of UEs. |  |
| MacAddr48 | 3GPP TS 29.571 [14] | Mac Address of the UE. | ExtendedSessionInformation |
| NotificationMethod | 3GPP TS 29.508 [15] | Represents the Notification Method. |  |
| PlmnId | 3GPP TS 29.571 [14] | PLMN Identifier. |  |
| RatType | 3GPP TS 29.571 [14] | RAT Type. |  |
| Snssai | 3GPP TS 29.571 [14] | Identifies a S-NSSAI |  |
| Supi | 3GPP TS 29.571 [14] | Identifies the SUPI of the UE. |  |
| SupportedFeatures | 3GPP TS 29.571 [14] | Used to negotiate the applicability of the optional features defined in subclause 5.8. |  |
| Uinteger | 3GPP TS 29.571 [14] | Unsigned integer. |  |
| NOTE: "AnGwAddress" data structure is only used to encode the ePDG address and is only applicable to the 5GS and EPC/E-UTRAN interworking scenario as defined in 3GPP TS 29.512 [9], Annex B. | | | |

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