**3GPP TSG CT WG3 Meeting #138 *C3-246134r2***

**Orlando, U.S; 18th – 22nd November 2024**

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.551** | **CR** | **0134** | **rev** | **1** | **Current version:** | **18.5.0** |  |
|  | | | | | | | | |
| *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:*** | Corrections related to PfdDetermination | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | ZTE | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eNetAE19 | | | | |  | ***Date:*** | | | 2024-11-11 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***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:*** | | 1. 23.288, cl 6.16.4   The NWDAF derives PFD Determination analytics, e.g. new or updated suggested PFD information for the existing Application ID. For providing new suggested PFD information, the NWDAF shall assign a new PFD ID that is not yet used for this Application ID. For updating PFD information, the NWDAF shall use the existing PFD ID when indicating the updated suggested PFD information.  In 29.520, pfdId attribute is defined as M within SuggestedPfdInfo data type, and the description of pfdId attribute in the definition of type SuggestedPfdInfo says: Identifier of the PFD (i.e., new PFD ID assigned by the NWDAF or the existing PFD ID retrieved from the NEF(PFDF) which was generated by NWDAF).  Based on above, when the NWDAF collects the PFD information from the PFDF, the PFD ID shall be included in the PFD information. Otherwise, for providing new suggested PFD information, the NWDAF cannot ensure to assign a new PFD ID that is not yet used for this Application ID; for updating PFD information, the NWDAF cannot indicate the existing PFD ID to be updated.   1. The description of PfdDetermination feature in Table 5.8-1 in incomplete. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | 5.6.2.5, mandate the pfdid attribute for PfdDetermination feature.  5.8, extend the description of PfdDetermination feature to cover the support of immediate report. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | PfdDetermination functionality may not work properly. Incomplete feature description. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.6.2.5, 5.8 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 have any impact in the OpenAPI specification. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

**Additional discussion(if needed):**

**Proposed changes:**

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

#### 5.6.2.5 Type: PfdContent

Table 5.6.2.5-1: Definition of type PfdContent

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| pfdId | string | C | 0..1 | Identifies a PFD of an application identifier. If PartialUpdate or PartialPull feature is supported, this attribute shall be provided by the PFDF. (NOTE 2) |  |
| flowDescriptions | array(string) | O | 1..N | Represents a 3-tuple with protocol, server ip and server port for UL/DL application traffic. The content of the string has the same encoding as the IPFilterRule AVP value as defined in IETF RFC 6733 [18]. (NOTE 1) |  |
| urls | array(string) | O | 1..N | Indicates a URL or a regular expression which is used to match the significant parts of the URL. (NOTE 1) |  |
| domainNames | array(string) | O | 1..N | Indicates an FQDN or a regular expression as a domain name matching criteria. (NOTE 1) |  |
| dnProtocol | DomainNameProtocol | C | 0..1 | Indicates the additional protocol and protocol field for domain names to be matched, it may only be provided when domainNames attribute is present. | DomainNameProtocol |
| sourceNfType | NFType | O | 0..1 | Indicates the source NF type of this PFD.  The absence of this attribute indicates that this PFD was generated by the AF. | PfdDetermination |
| NOTE 1: If a PFD contains multiple filter types, the PFD is only matched when every filter type contained in the PFD has a matching value.  NOTE 2: If the pfdId is not provided to the NWDAF, then the NWDAF will not be able to update the corresponding entries. | | | | | |

\*\*\* 2nd Change \*\*\*

## 5.8 Feature negotiation

The optional features in table 5.8-1 are defined for the Nnef\_PFDmanagement API. They shall be negotiated using the extensibility mechanism defined in clause 6.6 of 3GPP TS 29.500 [5].

Table 5.8-1: Supported Features

|  |  |  |
| --- | --- | --- |
| Feature number | Feature Name | Description |
| 1 | PartialUpdate | The PFDF can use this feature for partial update of PFDs. |
| 2 | DomainNameProtocol | This feature supports the additional protocol matching condition for the domain name in PFD data. |
| 3 | PfdChgSubsUpdate | The NF service consumer can use this feature for updating the PFD change subscription. |
| 4 | ES3XX | Extended Support for 3xx redirections. This feature indicates the support of redirection for any service operation, according to Stateless NF procedures as specified in clauses 6.5.3.2 and 6.5.3.3 of 3GPP TS 29.500 [5] and according to HTTP redirection principles for indirect communication, as specified in clause 6.10.9 of 3GPP TS 29.500 [5]. |
| 5 | PartialPull | The NF service consumer can use this feature to retrieve the PFDs by the partial update. |
| 6 | NotificationPush | The PFDF can use this feature to notify the NF service consumer to retrieve the PFDs. |
| 7 | CachingTimer | The PFDF and the NF service consumer can use this feature to support caching timer with unit of duration second. |
| 8 | PfdDetermination | The PFDF can use this feature to provide the source NF type of the PFD to the consumer. This feature also indicates the support of immediate report within the subscription response. |

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