**3GPP TSG CT WG3 Meeting #138 *C3-246496***

**Orlando, US, 18 - 22 November, 2024 was C3-246339**

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| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
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|  | **552** | **CR** | **0140** | **rev** | **-** | **Current version:** |  |  |
|  |
| *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:***  | Clarification regarding PDU Session Traffic analytics |
|  |  |
| ***Source to WG:*** |  |
| ***Source to TSG:*** |  |
|  |  |
| ***Work item code:*** | TEI19, eUEPO |  | ***Date:*** |  |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** |  |
|  | *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-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19) Rel-20 (Release 20)* |
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| ***Reason for change:*** | Stage-2 (SA2) agreed CR S2-2411167 (TS 23.503 CR#1338) clarifies that the Analytic ID related to URSP awareness (i.e. PDU Session traffic analytics) from NWDAF will notify PCF about the unmatched traffic of the PDU Session(s), not the unexpected traffic |
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| ***Summary of change:*** | Clause 5.7.19 is updated to reflect above clarification from stage-2. |
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| ***Consequences if not approved:*** | Misalignment between stage-3 implementation and stage-2 requirements. |
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| ***Clauses affected:*** | 5.7.19 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** | **X** |  |  Other core specifications  | TS/TR 23.503 CR 1338  |
| ***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 open API defined in this specification |
|  |  |
| ***This CR's revision history:*** |  |

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

### 5.7.19 PDU Session Traffic Analytics

This procedure is used by the NWDAF service consumer (e.g. PCF) to subscribe or request PDU Session Traffic analytics on whether traffic of UEs via one or multiple PDU sessions is according to the information provided by the service consumer or not.



Figure 5.7.19-1: Procedure for PDU Session Traffic Analytics

1a. In order to obtain the PDU Session Traffic analytics, the NWDAF service consumer (e.g. PCF) may invoke Nnwdaf\_AnalyticsInfo\_Request service operation as described in clause 5.2.3.1.

1b-1c. In order to obtain the PDU Session Traffic analytics, the NWDAF service consumer (e.g. PCF) may invoke Nnwdaf\_EventsSubscription\_Subscribe service operation as described in clause 5.2.2.1.

2. The NWDAF determines whether it needs to collect the data and, if needed, it collects the data either directly from the UPF or indirectly via the SMF and identifies the SMF(s) and/or UPF(s) to retrieve the data.

3a-3b. [Conditional Option 1] The NWDAF shall invoke the Nsmf\_EventExposure\_Subscribe service operation by sending an HTTP POST request targeting the resource "SMF Notification Subscriptions" as described in 3GPP TS 29.508 [6] to subscribe via the SMF to UPF to retrieve "UserDataUsageMeasures" UPF event. The SMF responds to the NWDAF an HTTP "201 Created" response after having received HTTP "201 Created" response from the UPF.

4a-4b. The SMF subscribes to the UPF on behalf of the NWDAF by invoking Nupf\_EventExposure\_Subscribe service operation as described in clause 5.2.2.2 of 3GPP TS 29.564 [40] to retrieve "UserDataUsageMeasures" UPF event from the UPF. The UPF responds to the SMF an HTTP "201 Created" response.

5a-5b. [Conditional Option 2] The NWDAF may directly invoke the Nupf\_EventExposure\_Subscribe service operation as described in clause 5.2.2.2 of 3GPP TS 29.564 [40] to retrieve "UserDataUsageMeasures" UPF event from the UPF. The UPF responds to the NWDAF an HTTP "201 Created" response.

NOTE 1: The conditions for subscribing to UPF events directly at the UPF or via the SMF, i.e., the conditions for invoking step 3 or step 5 are described in 3GPP TS 29.564 [40].

6a-6b. The UPF invokes Nupf\_EventExposure\_Notify service operation by sending an HTTP POST request to the NWDAF identified by the notification URI received in step 4a or step 5a. The NWDAF responds to the UPF an HTTP "204 No Content" response.

7. The NWDAF derives analytics indicating a list of UEs and their detected traffic that is matchedaccording to the information provided by the consumer (i.e. Traffic Descriptor, S-NSSAI and DNN), including its volume and a list of UEs and their detected traffic that it is not matched according to the information provided by the consumer (i.e. Traffic Descriptor, S-NSSAI and DNN) including its volume.

8a. If step 1a is performed, the NWDAF sends the Nnwdaf\_AnalyticsInfo\_Request response containing the PDU Session Traffic analytics as described in clause 5.2.3.1.

8b-8c. If step 1b and step 1c are performed, the NWDAF invokes Nnwdaf\_EventsSusbcription\_Notify service operation containing the PDU Session Traffic analytics as described in clause 5.2.2.1.

NOTE 2: For details of Nnwdaf\_EventsSubscription\_Subscribe/Unsubscribe/Notify or Nnwdaf\_AnalyticsInfo\_Request service operations refer to 3GPP TS 29.520 [5].

NOTE 3: For details of Nsmf\_EventExposure\_Subscribe/Notify service operations refer to 3GPP TS 29.508 [6].

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