**3GPP TSG-CT WG4 Meeting #130C3-253538**

**Göteborg, Sweden; 25th – 29th August 2025** is revision of C3-253459

**Source: China Mobile**

**Title: New WID on Protocol for AI Data Collection from UPF**

**Document for: Approval**

**Agenda Item: 19.2**

**3GPP TSG-CT WG4 Meeting #130C4-253351**

**Göteborg, Sweden; 25th – 29th August 2025** **was3062**

**Source: China Mobile**

**Title: New WID on Protocol for AI Data Collection from UPF**

**Document for: Approval**

**Agenda Item: 19.2.1**

3GPP™ Work Item Description

Information on Work Items can be found at <http://www.3gpp.org/Work-Items>
See also the [3GPP Working Procedures](http://www.3gpp.org/specifications-groups/working-procedures), article 39 and the TSG Working Methods in [3GPP TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm)

Title: Protocol for AI Data Collection from UPF

Acronym: PAIDC\_UPF

Unique identifier: 1090001

Potential target Release: Rel-19

# 1 Impacts

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Affects: | UICC apps | ME | AN | CN | Others (specify) |
| Yes |  |  |  | X |  |
| No | X | X | X |  | X |
| Don't know |  |  |  |  |  |

# 2 Classification of the Work Item and linked work items

## 2.1 Primary classification

### This work item is a …

|  |  |
| --- | --- |
|  | Study  |
|  | Normative – Stage 1 |
|  | Normative – Stage 2 |
| X | Normative – Stage 3 |
|  | Normative – Other\* |

**\* Other = e.g. testing**

## 2.2 Parent Work Item

|  |
| --- |
| Parent Work / Study Items  |
| Acronym | Working Group | Unique ID | Title (as in 3GPP Work Plan) |
| FS\_PAIDC\_UPF | CT4 | 1040005 | Study on Protocol for AI Data Collection from UPF |

### 2.3 Other related Work Items and dependencies

|  |
| --- |
| Other related Work /Study Items (if any) |
| Unique ID | Title | Nature of relationship |
| N/A |  |  |

# 3 Justification

The 5G service-based architecture enables flexible information exchange via standardized SBIs, providing a framework for AI/ML functions (e.g., NWDAF) to collect data from diverse sources.

As AI/ML adoption increases for network automation and analytics, an optimized protocol is needed to efficiently collect data from user-plane (e.g., Nupf per TS 29.564) and control-plane (e.g., Nnwdaf per TS 29.520) sources over SBIs. This is critical for high-volume/frequent data transfers to ensure AI/ML system responsiveness and scalability without degrading network performance.

Based on the background above, the SID FS\_PAIDC\_UPF (CP-251039) was approved to study the Protocol for AI Data Collection from UPF. In this SID, the following two key issues were studied:

- Key Issue#1: Identifying and lowering the network performance impacts of intensive data collection from UPF;

- Key Issue#2: Data collection protocol selection.

TR 29.889 was sent for information to TSG#108 and for approval to TSG#109. A WID on Protocol for AI Data Collection from UPF is needed to standardize the solutions agreed for normative work according to the conclusions of the study documented in Clause 8 of TR 29.889.

# 4 Objective

The aim of this work item is to specify the solutions concluded to be standardized in TR 29.889 Clause 8 Conclusions.

Stage 3 objectives:

CT4:

* Enhancement of Nupf\_EventExposure service to enable the NF service consumer to create a UPF event exposure subscription with reduced reporting instructions, and to skip generating event reports according to these instructions;
* Enhancement of Nupf\_EventExposure service to enable bundling of event reports of different UPF event exposure subscriptions;
* Enhancement of Nupf\_EventExposure service to enable the NF service consumer to create a UPF event exposure subscription requesting to add RAT type into the event reports, and identify RAT type(s) for which the NF service consumer require to receive the event reports from the PDU session(s) of the UE(s) camping on these RAT type(s);

CT3:

* Enhancement of Nsmf\_EventExposure service to enable the NF service consumer to create an event exposure subscription with reduced reporting instructions, and to forward these instructions to the UPF;
* Enhancement of Nsmf\_EventExposure service to enable bundling of event reports of different UPF event exposure subscriptions, and to provide these parameters to the UPF;

# 5 Expected Output and Time scale

|  |
| --- |
| New specifications  |
| Type  | TS/TR number | Title | For info at TSG#  | For approval at TSG# | Rapporteur |
| N/A |  |  |  |  |  |

|  |
| --- |
| Impacted existing TS/TR  |
| TS/TR No. | Description of change  | Target completion plenary# | Remarks |
| 29.564 | - Enhancement of Nupf\_EventExposure service to support the event reports reduction, event reports bundling, event subscription optimization using RAT.  | TSG#110 (Sep, 2025) | CT4 |
| 29.508 | - Enhancement of Nsmf\_EventExposure service to support the event reports reduction, event reports bundling. | TSG#110 (Sep, 2025) | CT3 |

# 6 Work item Rapporteur(s)

Wang Rong, China Mobile, wangrongyjy@chinamobile.com

# 7 Work item leadership

CT4

# 8 Aspects that involve other WGs

None

# 9 Supporting Individual Members

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| --- |
| Supporting IM name |
| China Mobile |
| CATT |
| China Telecom |
| Deutsche Telekom |
| Huawei |
| Nokia |
| Orange |
| SK Telecom |
| vivo |
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