**3GPP TSG-SA3 Meeting #104-e- Ad-hoc *draft\_S3-213412-r1***

**e-meeting, 27 – 30 September 2021** Revision of S3-20xxxx

**Source: Huawei, HiSilicon**

**Title: New solution for naming of purposes**

**Document for: Approval**

**Agenda Item: 5.5**

# 1 Decision/action requested

***This contribution proposes a new solution for key issue #5 in TR 33.867.***

# 2 References

# 3 Rationale

The contribution proposes a new solution for key issue #5 to clarification how to map purpose.

# 4 Detailed proposal

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Start of 1st Change \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 23.558: "Architecture for enabling Edge Applications (EA) ".

[3] 3GPP TR 33.849: “Study on subscriber privacy impact in 3GPP”.

[4] 3GPP TS 23.288: “Architecture enhancements for 5G System (5GS) to support network data analytics services”

[5] 3GPP TS 23.501: “System architecture for the 5G System (5GS)”

[6] General Data Protection Regulation, <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02016R0679-20160504&from=EN>

[xx] 3GPP TS 23.502: “Procedures for the 5G System (5GS)”

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* End of 1st Change \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Start of 2nd Change \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

## 7.X Solution #X: Mapping Purpose from Human Readable Format to Machine Readable Format

### 7.X.1 Solution overview

The solution addresses key issue #5.

The solution gives an overview for how to map purpose from human readable format to machine readable format.

### 7.X.2 Solution details

In real world, the legal entity (e.g. operator) will collect user data for specific purpose. The operator will sign a contract with user which clearly states that which data will be collected, and what purpose will be done using the collected data.

For example, the operator will provide location based advertising services for the user, in order to achieve that the operator will collect user’s identity (e.g. IMSI, IMEI), location information (e.g. TAI, cell ID, etc.), etc., for analytics, and may exposure user’s identity and location information to the 3rd party. In this example, there are the following items:

* The data controller is the operator.
* The data processor can be the operator, or 3rd party.
* The human readable purpose will be “location based advertising services”.
* The processing of data includes collection, analysis, and share.
* Collection and analysis of data will be “user identity” and “user’s location information”.
* Share of data will also be “user identity” and “user’s location information”.

While in 3GPP, the services have its fixed service operation name, inputs and outputs.

For example, for UE mobility analytics as depicted in clause 6.7.2 in TS 23.288 [3], there are the following items:

* The service operation name is “Nnwdaf\_AnalyticsSubscription\_Subscribe”.
* The inputs include “analytics ID = UE mobility analytics”, “UE ID = SUPI”, “NF ID”.
* The outputs include “mobility analytics”.
* Based on the request, the NWDAF will collect and analysis of data as depicted in clause 6.7.2.2 in TS 23.288 [3], i.e. UE ID, UE location, etc.

Besides, for UE location exposure as depicted in clause 5.2.6.2.2 in TS 23.502 [xx], there are the following items:

* The service operation name is “Nnef\_EventExposure\_Subscribe”
* The inputs include “event ID = Location Reporting”, “UE ID = GPSI”, “AF ID”.
* The outputs include “UE location information”.
* Based on the request, the NEF will share UE’s location information to the AS.

Thus, it is obvious that UE mobility analytics service and UE location exposure service have the same processing of data with the “location based advertising services”, including the action and data. Thus, the human readable purpose “location based advertising services” can be finally mapped to machine readable purpose “Nnwdaf\_AnalyticsSubscription\_Subscribe with input analytics ID = UE mobility analytics”, “Nnef\_EventExposure\_Subscribe with input event ID = Location Reporting”.

Editor’s Note: It is ffs how to address the issue that mapping different purpose to the same service operation name and inputs.

The operator can use the following procedure to map the purpose:

1. Identify which 3GPP services are needed for a service provided to the user.
2. According to the fixed 3GPP services, identify which data is used for how to process.
3. List the following in the contract: services provided to the user, data controller, data processor, and processing, processed data.
4. Put the following related to the selected 3GPP services in the subscription data:
   1. Service operation names, inputs: indicate purpose, processing, and processing data.
   2. Processor ID: indicate data processor. Can be specific PLMN ID, or general ID, e.g. any 3rd party.
   3. User consent results: user granted the consent or not.

### 7.X.3 Solution evaluation

TBA.\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* End of 2nd Change \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*