**3GPP TSG SA WG3 Meeting #107-e draft\_S3-220867-r1**

**e-meeting, 16-20 May 2022 revision S3-22abcd**

**Source: Huawei, HiSilicon**

**Title: New SID on Study of Security aspects on User Consent for 3GPP Services Phase 2**

**Document for: Approval**

**Agenda Item: 6**

3GPP™ Work Item Description

Information on Work Items can be found at
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: Study of Security aspects on User Consent for 3GPP Services Phase 2

Acronym: FS\_UC3S\_Ph2

Unique identifier:

{A number to be provided by MCC at the plenary}

Potential target Release: Rel-18

# 1 Impacts

{For Normative work, identify the anticipated impacts. For a Study, identify the scope of the study}

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

# 2 Classification of the Work Item and linked work items

## 2.1 Primary classification

### This work item is a Study Item

{Tick one box. "**Feature** / **Building Block** / Work Task" form a hierarchical structure. E.g. no Building Block can be proposed without a corresponding parent Feature. The full structure of all existing Work Items is shown in the 3GPP Work Plan in ftp://ftp.3gpp.org/Information/WORK\_PLAN}

|  |  |
| --- | --- |
|  | Feature |
|  | Building Block |
|  | *Work Task* |
| X | Study Item |

## 2.2 Parent Work Item

For a brand-new topic, use “N/A” in the table below. Otherwise indicate the parent Work Item.

|  |
| --- |
| Parent Work / Study Items  |
| Acronym | Working Group | Unique ID | Title (as in 3GPP Work Plan) |
| N/A | N/A | N/A | N/A |

### 2.3 Other related Work Items and dependencies

|  |
| --- |
| Other related Work /Study Items (if any) |
| Unique ID | Title | Nature of relationship |
| 930006 | Security aspects on User Consent for 3GPP services | UC3S\_SEC |

**Dependency on non-3GPP (draft) specification:**

# 3 Justification

In Rel-17, SA3 has defined a general framework applicable to any feature required to handle user consent as described in in 3GPP TS 33.501. The framework includes storage requirements for the UDM as well as generic services for user consent check and revocation. For any such feature, the framework requires the identification, in the standards, of a special NF called the user consent enforcement entity. This has been already done for features such as eNA and MEC in Rel-17.

However, the case that the enforcement entity and UDM belong to different legal domains, i.e. subject to different regulations, has not been considered so far since for both eNA and MEC roaming scenarios were not covered in the Rel-17 work. Nevertheless in Rel-18, the support of roaming is being studied for both eNA and MEC.

For eNA, the SA2 study, documented in 3GPP TR 23.700-81, includes a key issue on "Data and analytics exchange in roaming case" where it is stated that “Coordination with SA3 on security aspects is required”. For MEC, the corresponding SA2 study documented in 3GPP TR 23.700-48, includes also a key issue related to roaming: "Accessing EHE in a VPLMN when roaming".

Another aspects that was not studied is related to user consent handling in RAN in general and RAN related feature in particular. In fact all the user consent work performed in Rel-17 pertains to CN and CN related features. Now, it seems that many use cases and features would require RAN involvement and hence further analysis such as AIML, NTN, etc. In particular for NTN, SA3 has already replied to an LS from RAN2 in S3-214349 stating that "SA3 has not yet studied how this user consent handling can be used specifically for the NTN use case.". For AIML, process of user data on RAN is also studied in TR 37.817, it states that “user data privacy and anonymisation should be respected during AI/ML operation”.

Moreover, current user consent mechanism has the following limitations:

- Consent should have granular definition for enhanced privacy protection (e.g. network can share location info to Application Server-1 when user is in location-y)

Therefore, the continuation of the user consent work is required in SA3 not only to cover the issue described above but also any R18 feature expected to deal with user consent and to address the above mentioned Rel-17 limitations.

# 4 Objective

The aim of this study is to investigate potential enhancements of 5GS that would enable broader use cases in relation with user consent.

The following aspects are in the scope of the study:

1. Investigating the potential issues and solutions with user consent for:

- eNA in case of roaming.

- MEC in case of roaming.

- NTN.

- AI/ML for NG-RAN.

2. Investigating the potential generic security requirements, services and guidance for user consent derived from objective 1.

NOTE 1: This SID can be updated to reflect additional use cases.

NOTE 2: Principles, regulations, and definitions related to privacy, which are recognized differently in each different country or area, are taken into account when deriving the concept of user consent for 3GPP users.

NOTE 3: Even where solutions exist to obtain user consent, collection and exposure of user sensitive data should be minimized and identification of the users should only be allowed where critical to the operation of the related feature.

# 5 Expected Output and Time scale

|  |
| --- |
| New specifications {One line per specification. Create/delete lines as needed} |
| Type  | TS/TR number | Title | For info at TSG#  | For approval at TSG# | Rapporteur |
|  Internal TR | TR 33.xxx | Enhancement of Security aspects on User Consent for 3GPP Services | TSG#98Dec.,2022 | TSG#99March,2023 | Rong Wu, Huawei, Raina.wu@huawei.com |

|  |
| --- |
| Impacted existing TS/TR {One line per specification. Create/delete lines as needed} |
| TS/TR No. | Description of change  | Target completion plenary# | Remarks |
| N/A | N/A | N/A | N/A |
|  |  |  |  |

# 6 Work item Rapporteur(s)

Rong Wu, Huawei, Raina.wu@huawei.com

# 7 Work item leadership

SA3

# 8 Aspects that involve other WGs

SA2, SA6 and RAN3 may need to be consulted during the SA3 study with respect to use cases and scenarios that require User Consent.

# 9 Supporting Individual Members

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| --- |
| Supporting IM name |
| Huawei |
| HiSilicon |
| China Telecomn |
| China Mobile |
| China Unicomn |
| CAICT |
| Samsung |
| FutureWei |
| Xiaomi |
| OPPO |
| Ericsson? |
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