**3GPP TSG-SA3 Meeting #113 *S3-23xxxx***

**Chicago, USA, 6 - 11 November 2023** **(revision of xx-yyxxxx)**

**Source: CATT**

**Title: New SID on Study on Security Aspects of Enhancement for Proximity Based Services in 5GS Phase 3**

**Document for: Approval**

**Agenda Item: 6**

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: Study on Security Aspects of Enhancement for Proximity Based Services in 5GS Phase 3

Acronym: FS\_5G\_ProSe\_Sec \_Ph3

Unique identifier:

Potential target Release: Rel-19

# 1 Impacts

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

# 2 Classification of the Work Item and linked work items

## 2.1 Primary classification

### This work item is a …

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

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

## 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 |
| 900007 | Proximity based Services in 5GS | Rel-17 Stage 2 5G\_ProSe work item. |
| 970016 | Proximity-based Services in 5GS Phase 2 | Rel-18 Stage 2 5G\_ProSe\_Ph2 work item. |
| 941002 | NR sidelink relay enhancements | Rel-18 RAN work item on NR sidelink relay enhancements |
| 930008 | Security Aspects of Proximity based Services (ProSe) in the 5G System (5GS) | Rel-17 SA3 work item on security aspects. |
| 990045 | Security Aspects of Proximity-based Services in 5GS Phase 2 | Rel-18 SA3 work item on security aspects. |

# 3 Justification

The 5G System has been enhanced to support Proximity Services in Release 17 and Release 18. However, there are still some new features need to be developed and some existing features need to be enhanced. According to the SA2’s R-19 Satellite SID proposal (S2-2311899) endorsed at the SA2 Meeting #159, SA2 plans to study the following work tasks in R-19:

- WT-1: Enhance ProSe to support multi-hop over NR PC5 reference point

- WT-5: Support Multi-path communications via different UE-to-Network Relays

The security of these new features should be studied in SA3.

In addition, some other security work issues not addressed by SA3 in R-18, such as security for 5G ProSe UE-to-UE Relay Communication with integrated discovery, may also need to be studied in R-19.

# 4 Objective

The objective is to study the security and privacy aspects of proximity based services in 5G system phase 3 while basing this study on ProSe security specified in Rel-17 and Rel-18. Ensure that security solutions are aligned with the work in SA2, RANs and SA1. The work is comprised of the following parts:

- Study the security key issues, threats and requirements of proximity based services in 5G system phase 3.

- Elaborate on the potential security solutions to cover these requirements.

Both non-roaming and roaming scenarios will be considered.

NOTE: Timely feedback on supporting SA2/RANs study needs to be considered.

# 5 Expected Output and Time scale

***{If this WID covers both stage 2 and stage 3, clearly indicate the different completion dates.}***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 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 | 33.XXX | Study on Security Aspects of Enhancement for Proximity Based Services in 5GS Phase 3 | TBD | TBD |  |

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

# 6 Work item Rapporteur(s)

# 7 Work item leadership

SA3

# 8 Aspects that involve other WGs

Potential interactions with SA2 WG and RAN WGs during the work.

# 9 Supporting Individual Members

|  |
| --- |
| Supporting IM name |
| CATT |
| CAICT |
| China Unicom |
| China Telecommunications |
| ZTE |
|  |
|  |
|  |