**3GPP TSG-SA3 Meeting #119 draft\_S3-245320-r1**

**Orlando, US, 11 - 15 November 2024** **(revision of xx-yyxxxx)**

**Source: Huawei, HiSilicon, China Telecom**

**Title: New WID on Security Aspects of 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: Security Aspects of Proximity Based Services in 5GS Phase 3

Acronym: 5G\_ProSe\_Sec\_Ph3

Unique identifier:

Potential target Release: Rel-19

# 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 | 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 …

|  |  |
| --- | --- |
|  | Study |
|  | Normative – Stage 1 |
| X | Normative – Stage 2 |
|  | 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\_5G\_ProSe\_Sec\_Ph3 | SA3 | 1030034 | Study on Security Aspects of System Enhancement for Proximity-Based Services in 5GS Phase 3 |

### 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. |
| 1020066 | Study on Proximity-based Services in 5GS – Phase3 | Rel-19 Stage 2 5G\_ProSe\_Ph3 work item. |

# 3 Justification

The 5GS has been enhanced to support the security (including privacy) aspects of Proximity-based Services (ProSe) in the past releases (Rel-17 and Rel-18) as specified in TS 33.503. However, additional security enhancements need to be addressed based on the remaining/new security requirements about ProSe captured in TS 22.278 and TS 22.261, such as security of multi-hop support for Relays.

The research about potential security enhancement of supporting multi-hop UE-to-Network Relay and multi-hop UE-to-UE Relays has been progressed and the corresponding solutions have been decided to be proceed to normative specification.

# 4 Objective

This work item aims to specify the security aspects (including privacy) of 5G System enhancements to support multi-hop UE-to-Network Relay and multi-hop UE-to-UE Relay Proximity-based Services based on the conclusions reached within TR 33.743.

The detailed objectives are as follows:

* Enhance ProSe to support security aspects (including privacy) of Layer 3 multi-hop UE-to-UE Relays for IP, Ethernet and Unstructured PDU types.
* Enhance ProSe to support security aspects (including privacy) of multi-hop UE-to-Network Relays.

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

# 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 |
|  |  |  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Impacted existing TS/TR {One line per specification. Create/delete lines as needed} | | | |
| TS/TR No. | Description of change | Target completion plenary# | Remarks |
| TS 33.503 | Updates to support 5G\_ProSe\_Sec\_Ph3 features | TSG#107 (March. 2025) |  |

# 6 Work item Rapporteur(s)

Primary Rapporteur: Ao Lei (Huawei), leiao@huawei.com

Secondary Rapporteur: Weihan Gao (China Telecom), gaowh@chinatelecom.cn

# 7 Work item leadership

SA3

# 8 Aspects that involve other WGs

Potentially coordinate with SA2 WG and RAN WGs to address any architecture and RAN aspects.

# 9 Supporting Individual Members

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| --- |
| Supporting IM name |
| Huawei |
| HiSilicon |
| China Telecom |
| Xiaomi |
| Interdigital |
| Qualcomm |
| CATT (??) |
| Ericsson (??) |
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