**3GPP TSG-SA3 Meeting #119 draft\_S3-245321-r1**

**Orlando, US, 11 -15 November 2024** **(revision of S3-244848)**

**Source: Ericsson**

**Title: New WID on UAS security enhancements**

**Document for: Approval**

**Agenda Item: 5.11**

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: Uncrewed Aerial System Phase 3 Security

Acronym: UAS\_Ph3\_Sec

Unique identifier:

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

Potential target Release: Rel-19

# 1 Impacts

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Affects: | UICC apps | ME | AN | CN | Others (specify) |
| Yes |  | X |  | X |  |
| No | 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 |
| x | 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) |
| UAV\_Ph3 | SA1 | 1000032 | Uncrewed Aerial System Phase 3 |
| FS\_UAS\_Ph3 | SA2 | 1020069 | Study on Phase 3 for UAS, UAV and UAM |
| UAS\_Ph3 | SA2 | 1020059 | Uncrewed Aerial System Phase 3 |
| FS\_UAS\_Ph3\_Sec | SA3 | 1030033 | UAS security enhancements |

### 2.3 Other related Work Items and dependencies

|  |
| --- |
| Other related Work /Study Items (if any) |
| Unique ID | Title | Nature of relationship |
| 990036 | Security of UAV and UAM Phase 2 | Rel-18 SA3 UAS\_Ph2 |
|  |  |  |

# 3 Justification

SA1 has studied how to further enhance the interaction between 5GS and UAV (Uncrewed Aerial Vehicle) system, including the UAV operations and management in Rel-19 (i.e. FS\_UAV\_Ph3: TR 22.843).

SA2 has studied and progressed work item to specify architecture and system level enhancements to support additional scenarios and requirements for UAV (Uncrewed Aerial Vehicle) and UAM (Urban Air Mobility) as per conclusions reached within TR 23.700-59 (clause 8).

SA3 has concluded the study to identify potential security enhancements to support additional scenarios and requirements for UAV (Uncrewed Aerial Vehicle) in TR 33.759.

# 4 Objective

The aim of this work item is to specify security enhancements to support additional scenarios and requirements for Uncrewed Aerial Systems (UAS) as per conclusions reached within TR 33.759 (clause 7).

Specifically, the objectives include:

- **WT#1:** Security enhancements to NEF services for supporting the following:

- The scenario of multiple USS serving different geographical areas corresponding to the UAV UE flight path.

- Support a changeover from one USS to another USS for UAV UE assisted by 5GC.

## TU estimates and dependencies

|  |  |
| --- | --- |
| Work Task ID | TU Estimate(Normative) |
| WT1 | 1.5 |
|  |  |

Total TU estimates for the normative phase: 1.5

Total TU estimates: 1.5

# 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 33.256 | Support of Phase 3 for UAS | TSG#107(March 2025) |  |
|  |  |  |  |

# 6 Work item Rapporteur(s)

Markus Hanhisalo, markus.hanhisalo@ericsson.com

# 7 Work item leadership

SA3

# 8 Aspects that involve other WGs

Not applicable

# 9 Supporting Individual Members

|  |
| --- |
| Supporting IM name |
| Huawei |
| HiSilicon |
| Ericsson |
| Qualcomm Incorporated |
| InterDigital |
| China Mobile |