**3GPP TSG-SA3 Meeting #115 *draft\_S3-240952-r2***

**Athens, Greece, 26th February - 1st March 2024 *is revision of S3-240811***

**Source: China Mobile**

**Title: New WID on security aspects for MSGin5G Service 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 for MSGin5G Service Phase 3

Acronym: 5GMARCH\_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 |  |
| No |  |  |  |  |  |
| Don't know | X |  | 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) |
| 5GMARCH | SA6 | 890026 | Application Architecture for MSGin5G Service |
| 5GMARCH\_Ph2 | SA6 | 950026 | Message Service within the 5G system (MSGin5G) Phase 2 |
| 5GMARCH\_Ph3 | SA6 | 1000037 | Message Service within the 5G system (MSGin5G) Phase 3 |

### 2.3 Other related Work Items and dependencies

|  |
| --- |
| Other related Work /Study Items (if any) |
| Unique ID | Title | Nature of relationship |
| 810014 | Message Service Within the 5G System requirements | Stage 1 requirements of MSGin5G Service |
| 930005 | Security aspects of the 5GMSG Service  | Rel-17 Security aspects of MSGin5G service (SA3) |
| 920049 | Enhanced Service Enabler Architecture Layer for Verticals | Stage 2 SEAL enhancements for 5GMARCH are done directly in eSEAL WID |
| 930004 | CT aspects for enabling MSGin5G Service | Rel-17 5GMARCH Stage 3  |
| 990098 |  CT aspects of 5GMARCH\_Ph2 | Rel-18 5GMARCH Stage 3 |
| 990041 | Security aspects of MSGin5G Ph2  | Rel-18 Security aspects of MSGin5G service (SA3) |

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

# 3 Justification

SA6 has specified TS 23.554 to support 5GMSG service in Rel-17 5GMARCH WID and Rel-18 5GMARCH\_Ph2 WID. However, some technical issues remain in 3GPP TS 23.554 and have not been solved in Rel-18, thus SA6 has started the normative work (SP-230781) in Rel-19 to address the remaining issues where SA3 is expected to solve the issues related to bulk registration, with the following Editor’s Notes extracted from TS 23.554.

Editor's note: Security aspects of bulk registration is the responsibility of SA3.

Editor's note: Security aspects of Non-MSGin5G UE bulk registration is the responsibility of SA3.

Editor's note: Security aspects of Non-MSGin5G UE bulk de-registration is the responsibility of SA3.

Editor's note: Security aspects of MSGin5G UE bulk de-registration is the responsibility of SA3.

Based on SA3’s Rel-17 and Rel-18 work, it’s specified that AKMA is used to achieve the authentication of MSGin5G UE and MSGin5G Server. However, when bulk registration where several MSGin5G UEs connect to the MSGin5G server via a MSGin5G Gateway UE, the authentication and authorization procedures between the MSGin5G UE in bulk and the MSGin5G Server, as well as between the MSGin5G Gateway UE and the MSGin5G Server have not yet been specified.

# 4 Objective

This work item is to specify solutions to solve the remaining issues in Rel-18 where SA3 is involved. Specifically, to:

- WT1. Develop technical solutions to satisfy bulk registration/de-registration, i.e. to specify the authentication and authorization procedures between the MSGin5G UE in bulk and the MSGin5G Server, as well as between the MSGin5G Gateway UE and the MSGin5G Server .

NOTE : New objectives can be added to address security aspects of other key issues introduced in SA6 after further progress made in SA6.

## TU estimates and dependencies

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Work Task ID | TU Estimate(Study) | TU Estimate(Normative) | RAN Dependency(Yes/No/Maybe)  | Inter Work Tasks Dependency  |
| 1. |  | 1.5 TU (3 meeting cycles) | No |  |
|  |  |  |  |  |

# 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 |
|  |  |  |  |  |  |

|  |
| --- |
| Impacted existing TS/TR {One line per specification. Create/delete lines as needed} |
| TS/TR No. | Description of change  | Target completion plenary# | Remarks |
| 33.501 | Adding procedures related to security aspects of bulk registration/de-registration | SA#106(Dec. 2024) |  |

# 6 Work item Rapporteur(s)

# 7 Work item leadership

SA3

# 8 Aspects that involve other WGs

# 9 Supporting Individual Members

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| --- |
| Supporting IM name |
| China Mobile |
| ZTE |
| CATT |
| OPPO |
| Samsung |
| Huawei |
| Hisilicon |
| CableLabs |