**TSG SA Meeting #SP-101 SP-231186**

**11 - 15 September, 2023, Bangalore, India (revision of SP-231140, 1144, 1170, 1171)**

**3GPP TSG|WG-SA2 Meeting #158 S2-2310029**

**Goteborg, Sweden, August 21 – 25, 2023** **(revision of S2-2309137, S2-2309679, S2-23009975)**

**Source: China Mobile (Moderator)**

**Title: New SID: Study on MPS for IMS Messaging and SMS services**

**Document for: Approval**

**Agenda Item: 10.5**

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 MPS for IMS Messaging and SMS services

Acronym: FS\_MPS4msg

Unique identifier:

Potential target Release: Rel-19

# 1 Impacts

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Affects: | UICC apps | ME | AN | CN | Others (specify) |
| Yes |  |  |  | X |  |
| No | X |  |  |  |  |
| 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 …

|  |  |
| --- | --- |
| 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) |
| MPS4msg | SA1 | 970042 | MPS for Messaging services |

### 2.3 Other related Work Items and dependencies

|  |
| --- |
| Other related Work /Study Items (if any) |
| Unique ID | Title | Nature of relationship |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

# 3 Justification

In addition to Multimedia Priority Service (MPS) for MMTEL voice/video calls and MPS for DTS, Rel-19 TS 22.153 has been updated to support authorized MPS Service Users with priority for messaging services in periods of network congestion during which normal commercial messaging services are degraded.

Per TS 22.153:

"The system shall support MPS priority for messaging services supported using IMS Messaging, SMS and/or MMS, or MSGin5G for an authorized Service User using a UE with a subscription for MPS.

NOTE 1:  MPS for Messaging may make use of commercial messaging service offerings provided by the operator. However, the messaging service applications are not in scope.

NOTE 2:  The MPS Service User might not know whether the messaging service is supported using IMS Messaging, SMS and/or MMS, or MSGin5G.

NOTE 3:  SMS options in scope are SMS via NAS and SMS over IP (i.e., SMS over MAP and SMS over SGs are not in scope).”

# 4 Objective

The objective is to study solutions addressing gaps in the EPC and 5GC interfaces and procedures to support MPS priority for SMS and MPS priority for messaging services based on IMS within the 3GPP system. For IMS, the scope is further limited to MPS priority by the 3GPP system when SIP (as specified in 3GPP TS 23.228) is used to support the messaging service.

The study will investigate the following aspects:

* WT-1: Solutions addressing how MPS for messaging service is requested and authorized using a UE with a subscription for MPS. This includes:
	+ Extension of MPS for Data Transport Service invocation and revocation to support MPS for messaging service;
	+ Extension of MPS authorization to support MPS for IMS messaging service;
* WT-2: Solutions addressing gaps for MPS priority treatment in EPC and 5GC for messaging services using 3GPP TS 23.228 specified SIP MESSAGE and SIP sessions.
* WT-3: Solutions addressing gaps for MPS priority treatment in EPC and 5GC for messaging services using
	+ MO/MT SMS over IP (3GPP TS 23.204); and
	+ MO/MT SMS over NAS.

NOTE: For SMS only subscription based priority treatment is in the scope of the study.

TU estimates and dependencies

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Work Task ID** | **TU Estimate****(Study)** | **TU Estimate****(Normative)** | **RAN Dependency****(Yes/No/Maybe)**  | **Inter Work Tasks Dependency** Editor’s Note: This column should highlight if WT#x is self-contained, or is depended on completion of other WTs |
| WT-1 | 0.5 | 0.5 | No | self-contained |
| WT-2 | 1.0 | 1.0 | No | Needs WT-1 |
| WT-3 | 1.5 | 1.5 | maybe | Needs WT-1 |

Total TU estimates for the study phase: 3

Total TU estimates for the normative phase: 3

Total TU estimates: 3 + 3 = 6

Note: The normative impacts are expected to all be similar and would not require the same TUs as in the study.

# 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 | 23.xxx | Study on MPS for IMS Messaging and SMS services | TSG SA#103 (Mar, 2024) | TSG SA#104 (June, 2024) | Robert (Peraton Labs) |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

|  |
| --- |
| 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)

Primary: Robert (Peraton Labs)

# 7 Work item leadership

SA2

# 8 Aspects that involve other WGs

None.

# 9 Supporting Individual Members

|  |
| --- |
| Supporting IM name |
| Peraton Labs |
| CISA ECD |
| AT&T |
| Verizon |
| T-Mobile USA |
| DISH Network |