**3GPP TSG-CT WG4 Meeting #124C4-243404**

**Maastricht, Netherlands; 19th – 23rd August 2024** **(revision of C4-243060)**

**Source: Peraton Labs, CISA ECD**

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

**Document for: Approval**

**Agenda Item: 5.1**

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: MPS for IMS Messaging and SMS services

Acronym: MPS4msg

Unique identifier: 1050007

{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 |  |
| No | x | 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 |
| x | 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) |
| MPS4msg | SA1 | 970042 | MPS for Messaging services |
| MPS4msg | SA2 | 1040029 | MPS for IMS Messaging and SMS services |

### 2.3 Other related Work Items and dependencies

|  |  |  |
| --- | --- | --- |
| Other related Work /Study Items (if any) | | |
| Unique ID | Title | Nature of relationship |
| 1010031 | Study on MPS for IMS Messaging and SMS services | Portions of the study are intended to be realized in CT4 stage 2. |

# 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.

FS\_MPS4msg studied stage 2 solutions for MPS for messaging, documented in TR 23.700-75.

This WID adopts the conclusions of FS\_MPS4msg documented in TR23.700-75 for normative stage 2 specifications that are within CT4's scope.

The output of the SA2 MPS4msg and the CT4 stage 2 work will serve as requirements for the stage 3 work for CT1, CT3 and CT4.

The stage 3 objectives and stage 3 expected output below are preliminary until the stage 2 normative work in CT4 and SA2 becomes stable; the objectives and expected output will be updated at that time. The stage 2 work in CT4 can begin immediately.

# 4 Objective

For stage 2, the objective is to specify MPS for messaging as listed in the conclusions of TR 23.700-75, specifically those conclusions pertaining to SMS over NAS with SBI.

For stage 3, the objective is to support MPS for Messaging, based on the normative stage 2 requirements from both SA2 and CT4.

For CT1 stage 3

1) Convey MPS for Messaging indication from the HSS to the S-CSCF to the P-CSCF

2) Page with priority for MPS for Messaging

3) The IP-SM-GW and P-CSCF set the RPH for MPS for Messaging

For CT3 stage 3

1) Convey MPS for Messaging indication from the AF to the SCEF

2) Convey MPS for Messaging indication from the AF to the NEF

3) Potential impact to the PCF/PCRF to authorize the request from the P-CSCF, based on the existing MPS subscription data and to control the IMS signalling bearer/QoS flow for MPS

For CT4 stage 3

1) Convey the MPS for Messaging indication from the SCEF to the HSS

2) Convey the MPS for Messaging indication from the NEF to the UDM

3) Add MPS for Messaging indication to the HSS and UDM

4) Convey the MPS for Messaging indication from the HSS to the MME and SMS-GMSC

4) Convey the MPS for Messaging indication from the UDM to the AMF, SMSF and SMS-GMSC

5) The UDM and HSS authorize the UE for MPS for Messaging

6) The MME, IP-SM-GW, SMSF, SMS-IWMSC and SMS-GMSC set DRMP for MPS for Messaging

7) The SMSF sets Sbi-Message-Priority for MPS for Messaging

# 5 Expected Output and Time scale

|  |  |  |  |
| --- | --- | --- | --- |
| Impacted existing TS/TR {One line per specification. Create/delete lines as needed} | | | |
| TS/TR No. | Description of change | Target completion plenary# | Remarks |
| TS 23.540 | Implement the following from the TR:  - Clause 6.2.3.2a MO SMS over NAS with SBI  - Clause 6.2.3.3a MT SMS over NAS with SBI  - Clause 6.2.3.3b MT SMS over NAS with IP-SM-GW  - Clause 6.2.3.3c MT SMS over NAS with SMS Router | TSG CT#106 (Dec, 2024) | Stage 2 in CT4 based on study in TR 23.700‑75 |
| TS 24.229 | Convey the MPS for Messaging indication in regEvent from S-CSCF to P-CSCF. | TSG CT#109 (Sept, 2025) | CT1 |
| TS 24.247 | The P-CSCF adds RPH for MPS for Messaging | TSG CT#109 (Sept, 2025) | CT1 |
| TS 24.341 | The IP-SM-GW sets DRMP and RPH for MPS for Messaging | TSG CT#109 (Sept, 2025) | CT1 |
| TS 29.122 | Convey the MPS for Messaging indication on T8 (AF to SCEF). | TSG CT#109 (Sept, 2025) | CT3 |
| TS 29.128 | Convey the MPS for Messaging indication on S6t (SCEF to HSS). | TSG CT#109 (Sept, 2025) | CT4 |
| TS 29.213 | Update to indicate the specifics of an AF request indicating that the request is for MPS for Messaging. | TSG CT#109 (Sept, 2025) | CT3 |
| TS 29.214 | The PCRF/PCF receives the MPS for Messaging indication on the Rx interface and controls the MPS priority of the IMS signalling bearer/QoS flow. | TSG CT#109 (Sept, 2025) | CT3 |
| TS 29.228 | Convey the MPS for Messaging indication on Cx (HSS to S-CSCF). | TSG CT#109 (Sept, 2025) | CT4 |
| TS 29.272 | Convey the MPS for Messaging indication on S6a (HSS to MME). | TSG CT#109 (Sept, 2025) | CT4 |
| TS 29.336 | Convey the MPS for Messaging indication on S6t (SCEF to HSS). | TSG CT#109 (Sept, 2025) | CT4 |
| TS 29.338 | Convey MPS for Messaging indication on S6c (HSS to IP-SM-GW).  Add DRMP AVP with MPS priority for participating FEs on SGd (MME, SMSF, IP-SM-GW to SMS-IWMSC). | TSG CT#109 (Sept, 2025) | CT4 |
| TS 29.503 | Add MPS for Messaging indication in the UDM | TSG CT#109 (Sept, 2025) | CT4 |
| TS 29.513 | Update to indicate the specifics of an AF request indicating that the request is for MPS for Messaging. | TSG CT#109 (Sept, 2025) | CT3 |
| TS 29.514 | The PCF receives the MPS for Messaging indication on the N5 interface and controls the MPS priority of the IMS signalling bearer/QoS flow. | TSG CT#109 (Sept, 2025) | CT3 |
| TS 29.518 | The SMSF sets the Sbi-Message-Priority for MPS for Messaging | TSG CT#109 (Sept, 2025) | CT4 |
| TS 29.522 | Convey the MPS for Messaging indication on N33 (AF to NEF). | TSG CT#109 (Sept, 2025) | CT3 |
| TS 29.562 | Convey the MPS for Messaging indication on Nhss (HSS to P-CSCF). | TSG CT#109 (Sept, 2025) | CT4 |
| TS 29.577 | SMS-GMSC sets the Sbi-Message-Priority for MPS for Messaging on SM6 (IP-SM-GW to SMS-GMSC) and SM8 (SMS Router to SMS-GMSC) | TSG CT#109 (Sept, 2025) | CT4 |

# 6 Work item Rapporteur(s)

Monnes, Peter (Peraton Labs), pmonnes@peratonlabs.com

# 7 Work item leadership

CT4

# 8 Aspects that involve other WGs

The bulk of the stage 2 work will be the responsibility of SA2 under the SA2 WID.

# 9 Supporting Individual Members

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| --- |
| Supporting IM name |
| Peraton Labs |
| CISA ECD |
| T-Mobile USA |
| AT&T |
| Verizon |
| Apple |
| Ericsson |
| Nokia |