**3GPP TSG-SA WG6 Meeting #48-e S6-220606**

**e-meeting, 5th – 14th April 2022 (revision of S6-22xxxx)**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **23.554** | **CR** | **0032** | **rev** | **-** | **Current version:** | **17.2.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network | **X** |

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|  | | | | | | | | | | |
| ***Title:*** | Charging architectural requirements | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, Hisilicon | | | | | | | | | |
| ***Source to TSG:*** | S6 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5GMARCH\_Ph2 | | | | |  | ***Date:*** | | | 2022-03-30 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-18 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | This CR is proposed to add architectural requirements to fulfill the charging requirements specified in 3GPP TS 22.262, to achieve charge objective of the Rel-18 5GMARCH2 WID | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | The addition of the charging architectural requirements. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The procedure to fulfill the charge objective of the Rel-18 5GMARCH2 WID is still needed. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 2,4.x,5.3.2.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

\* \* First Change \* \* \*

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 22.262: "Message Service within the 5G System".

[3] GSMA PRD RCC.07: "RCC.07 Rich Communication Suite 9.0 Advanced Communications Services and Client Specification".

[4] OMA OMA-ERELD-LightweightM2M-V1\_1-20180612-C: "Enabler Release Definition for LightweightM2M".

[5] 3GPP TS 23.434: "Service Enabler Architecture Layer for Verticals".

[6] 3GPP TS 23.222: "Functional architecture and information flows to support Common API Framework for 3GPP Northbound APIs; Stage 2".

[7] 3GPP TS 23.502: "Procedures for the 5G System".

[8] 3GPP TS 23.682: "Architecture enhancements to facilitate communications with packet data networks and applications".

[9] 3GPP TS 29.122: "T8 reference point for northbound Application Programming Interfaces (APIs)".

[10] 3GPP TS 29.522: "5G System; Network Exposure Function Northbound APIs; Stage 3".

[11] 3GPP TS 23.401: "General Packet Radio Service (GPRS) enhancements for Evolved Universal Terrestrial Radio Access Network (E-UTRAN) access".

[12] 3GPP TS 23.501: "System Architecture for the 5G System (5GS); Stage 2".

[13] 3GPP TS 23.204: "Support of Short Message Service (SMS) over generic 3GPP Internet Protocol (IP) access; Stage 2".

[14] 3GPP TS 23.041: "Technical realization of Cell Broadcast Service (CBS)".

[15] 3GPP TS 23.040: "Technical realization of the Short Message Service (SMS)".

[16] 3GPP TS 33.501: "Security architecture and procedures for 5G System".

[x] 3GPP TS 32.240: "Charging architecture and principles".

\* \* \* Next Change \* \* \* \*

4.x Charging

4.x.1 Introduction

This subclause specifies the charging related requirements for the MSGin5G Service.

4.x.2 Requirements

[AR-4.x.2] The MSGin5G Server shall support collecting charging information from MSGin5G message according to the operator’s charging policy including charge per message, charge by amount of data, and flat rate (e.g., per month or per year).

\* \* \* Next Change \* \* \* \*

5.3.2.1 General functionalities

An MSGin5G Server provides server-side functionality to assist MSGin5G Clients with the sending and receiving of messages via the MSGin5G Service to/from Application Servers and/or other MSGin5G Service endpoints on other UEs, and collect charging information from MSGin5G message.

Functionalities of MSGin5G Server:

- To resolve message delivery mechanism for the MSGin5G Service endpoint based on the terminating MSGin5G Service ID to determine if the message is to be delivered to an MSGin5G UE, an Application Server or a Message Gateway for final delivery;

- To resolve the MSGin5G Group Service ID to determine the members of the Group specified in 3GPP TS 23.434[5];

- Interworking with non 3GPP messaging service through the Non-3GPP Message Gateway;

- Interworking with legacy 3GPP messaging service through the Legacy 3GPP Message Gateway;

- Exchanging MSGin5G messages with application servers, MSGin5G Clients, Legacy 3GPP Message Gateway and Non-3GPP Message Gateway;

- Supporting MSGin5G message segmentation according to service provider's policy;

- Supporting UE configuration procedures as specified in TS 23.434 [5] or communicating with the SEAL Configuration Management Server to provide MSGin5G configuration data on a UE to be ready for the MSGin5G Service;

- Managing information related to the MSGin5G Service, such as MSGin5G Client availability, Legacy 3GPP Message Gateway and Non-3GPP Message Gateway; and

- Interactions towards the CHF, as defined in TS 32.240 [x], to collect charging information from MSGin5G message according to the operator’s charging policy and report charging information to CHF.

NOTE: The details of charging fuction are out of scope of the present document.

Editor's note: What MSGin5G Client information related to the MSGin5G Service will be managed by the MSGin5G Server is FFS.

\* \* \* End of Changes \* \* \* \*