**3GPP TSG-SA1 Meeting #96e *S1-214151r5-Samsung***

**Electronic Meeting, 8 – 18 November 2021** *(revision of S1-213114)*

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **22.261** | **CR** | **0618** | **rev** | **5** | **Current version:** | **18.4.0** |  |
|  | | | | | | | | |
| *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:*** | Enhanced capability for high priority short message delivery | | | | | | | | | |
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| ***Source to WG:*** | China Mobile | | | | | | | | | |
| ***Source to TSG:*** | S1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eSMS | | | | |  | ***Date:*** | | | 2021-10-29 |
|  |  | | | |  | |  | | |  |
| ***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:*** | | In the current TS 22.261, the basic capability on messaging aspect within 5GS only focuses on MSGin5G Service, which provides new message service for IoT devices. However, some issues on legacy SMS existed since 2/3/4G are also expected to be solved in 5G. For example, how to assure high priority short message (e.g. Short message containing verification code for authorization) to get low latency and high reliability delivery in 5G network.  SMS over NAS is supported in control plane of 5GS, while SMS over IP is supported in user plane. Enhanced capability for high priority short message delivery in both control plane and user plane are suggested. | | | | | | | | |
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| ***Summary of change:*** | | To enable 5GS to provide enhanced capability for high priority short message delivery | | | | | | | | |
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| ***Consequences if not approved:*** | | High priority short message cannot get low latency and high reliability delivery in 5G network. | | | | | | | | |
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| ***Clauses affected:*** | | 6.29.1, 6.29.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | | 1. Update the coversheet. 2. Update the description of the requirements. | | | | | | | | |

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### 6.29.1 Description

The 5G system is expected to support advanced capabilities and performance of messaging service especially for massive IoT communication which are introduced by the MSGin5G Service [22]. The MSGin5G Service provides one to one, group and broadcast message services for thing-to-thing and person-to-thing communication with low end-to-end latency and high reliability of message delivery, in a resource efficient manner to optimize the resource usage of the both control plane and user plane in the network, and power saving in the user devices.

The 5G system is expected to support enhancement on legacy massage delivery, provides a faster delivery of high priority short message for both SMS over NAS and SMS over IP compared to non-priority short messages.

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### 6.29.2 Requirements

The 5G system supports the MSGin5G Service. The associated service level requirements of the MSGin5G Service are described in 3GPP TS 22.262 [22].

The SMS handling in the 5G Network and by roaming interfaces should have improved reliability and decrease latency as XXX% of messages are not delivered within YYY seconds which is considered an unacceptably long delay.

Editor’s Note: The values for XXX% (fraction of messages delivered) and YYY (time of delivery of messages) that are performance values associated with the above requirement remain for further study.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* END of CHANGE \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*