**3GPP TSG-CT WG1 Meeting #137-eC1-224910**

**E-Meeting, 18th – 26th August 2022**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **24.341** | **CR** |  | **rev** | **-** | **Current version:** | **17.1.0** |  |
|  |
| *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 |  |

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| ***Title:***  | Indication to the NAS layer for an MT SMSoIP or handed-over SMSoIP |
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| ***Source to WG:*** | MediaTek Inc. |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | 5GProtoc18 |  | ***Date:*** | 2022-07-07 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***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 canbe 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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
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| ***Reason for change:*** | As specified in 24.501, 4.5.5, the NAS layer will avoid double barring for an ongoing SMSoIP based on the indication from the upper layers. *For services b) to h) the 5GMM receives explicit start and stop indications from the upper layers.*Then the NAS layer will provide a correct RRC establishment cause based on that. e.g. SR after redirectionHowever, the UE is not sending the indication to the NAS layer when the MT SMSoIP starts.Moreover, the indication for stop is only specified when an MO call stops, the indication should also be sent for an MT call or a handed-over call. |
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| ***Summary of change:*** | 1. Adding that the UE sends the indication for start to the NAS layer when MT SMSoIP starts
2. Adding that the UE sends the indication for stop when the MT or the handed-over SMSoIP stops
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| ***Consequences if not approved:*** | The UE will provide a wrong RRC connection establishment cause and be unable to avoid double barring during an MT SMSoIP or a handed-over SMSoIP. |
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| ***Clauses affected:*** |  |
|  |  |
|  | **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:*** |  |

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

### E.2.1.1 Smart Congestion Mitigation

The following information is provided to the non-access stratum layer:

- MO-SMSoIP-attempt-started;

- MO-SMSoIP-attempt-ended;

- MT-SMSoIP-attempt-started; and

- MT-SMSoIP-attempt-ended.

Upon request from the user to submit an originating SM over IP as described in clause 5.3.1 and no other originating SM over IP as described in clause 5.3.1 exists, the UE sends the MO-SMSoIP-attempt-started indication to the non-access stratum and continue with SM over IP submission as described in clause 5.3.1.

When a terminating SM over IP submission is started and no other terminating SM over IP submission as described in clause 5.3.1 exists, the UE sends the MT-SMSoIP-attempt-started indication to the non-access stratum.

When an originating SM over IP submission is completed and no other originating SM over IP as described in clause 5.3.1 exists, the UE sends the MO-SMSoIP-attempt-ended indication to the non-access stratum.

When a terminating SM over IP submission is completed and no other terminating SM over IP submission as described in clause 5.3.1 exists, the UE sends the MT-SMSoIP-attempt-ended indication to the non-access stratum.

NOTE: If the UE supports other 3GPP specific mechanisms for communicating with the non-access stratum protocol implementation, e.g. DHCP discovery via PCO, then the UE is expected to support the transfer of information elements needed for the smart congestion mitigation enforcement.

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

### G.2.1.1 Indications to lower layers about start and stop of SMSoIP

The following information is provided to the non-access stratum:

- MO-SMSoIP-attempt-started;

- MO-SMSoIP-attempt-ended;

- MT-SMSoIP-attempt-started;

- MT-SMSoIP-attempt-ended; and

- for 3GPP access only, handover of ongoing SMSoIP from non-3GPP access.

Upon request from the user to submit an originating SM over IP as described in clause 5.3.1 and no other originating SM over IP as described in clause 5.3.1 exists, the UE sends the MO-SMSoIP-attempt-started indication to the non-access stratum. The UE shall:

a) if the barring result is "not-barred", continue with SM over IP submission as described in clause 5.3.1; and

b) if the barring result is "barred", reject the SM over IP submission.

When a terminating SM over IP submission is started and no other terminating SM over IP submission as described in clause 5.3.1 exists, the UE sends the MT-SMSoIP-attempt-started indication to the non-access stratum.

When an originating or a handed-over SM over IP submission is completed and no other originating or handed-over SM over IP submission as described in clause 5.3.1 exists, the UE sends the MO-SMSoIP-attempt-ended indication to the non-access stratum.

When a terminating SM over IP submission is completed and no other terminating SM over IP submission as described in clause 5.3.1 exists, the UE sends the MT-SMSoIP-attempt-ended indication to the non-access stratum.

When an ongoing SMS service over IP network is handed over from non-3GPP access to 3GPP access, the UE sends the MO-SMSoIP-attempt-started indication and the handover of ongoing SMSoIP from non-3GPP access indication to the non-access stratum.

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