**3GPP TSG-CT WG1 Meeting #131-eC1-214845**

**E-meeting, 19-27 August 2021 (revision of C1-214724)**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **24.301** | **CR** | **3589** | **rev** | **1** | **Current version:** | **17.3.0** |  |
|  | | | | | | | | |
| *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:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Intel, Nokia, Nokia Shanghai Bell, Samsung | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | MUSIM | | | | |  | ***Date:*** | | | 14-AUG-2021 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *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:*** | | According to TS 23.401 clause 4.3.33.6 paging restriction supports MMTel voice or CS domain voice:  *“The UE and the network may support Paging Restriction. The UE, if the MME indicates that the network supports Paging Restriction feature, may indicate Paging Restriction Information in the Service Request, or the Extended Service Request or the Tracking Area Update Request as specified in clauses 4.3.33.2 and 4.3.33.4. The Paging Restriction Information may indicate any of the following:*  *a) all paging is restricted, or*  *b) all paging is restricted, except paging for voice service (MMTel voice or CS domain voice), or*  *c) all paging is restricted, except for certain PDN Connection(s), or*  *d) all paging is restricted, except for certain PDN Connection(s) and voice service (MMTel voice or CS domain voice).”*  However, paging restriction in case of Paging for CS fallback is currently not specified. | | | | | | | | |
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| ***Summary of change:*** | | Added support for paging restriction and reject paging in case of Paging for CS fallback | | | | | | | | |
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| ***Consequences if not approved:*** | | MUSIM feature not complete | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.6.2.3.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 \*\*\*

##### 5.6.2.3.1 General

The network may initiate the paging procedure for CS fallback when the UE is IMSI attached for non-EPS services (see example in figure 5.6.2.3.1.1).



Figure 5.6.2.3.1.1: Paging procedure for CS fallback to A/Gb or Iu mode

To initiate the procedure when no NAS signalling connection exists and no paging restriction applied in the network for that paging, the EMM entity in the network requests the lower layer to start paging (see 3GPP TS 36.300 [20], 3GPP TS 36.413 [23]). The EMM entity may provide the lower layer with a list of CSG IDs, including the CSG IDs of both the expired and the not expired subscriptions. If there is a PDN connection for emergency bearer services established, the EMM entity in the network shall not provide the list of CSG IDs to the lower layer. The paging message includes a UE Paging Identity set to either the UE's S-TMSI or the UE's IMSI, and a CN domain indicator set to "CS" in order to indicate that this is paging for CS fallback.

NOTE: The timers T3413 and T3415 are not started in the network when the paging procedure is initiated for CS fallback.

To notify the UE about an incoming mobile terminating CS service excluding SMS over SGs when a NAS signalling connection exists, the EMM entity in the network shall send a CS SERVICE NOTIFICATION message. This message may also include CS service related parameters (e.g. Calling Line Identification, SS or LCS related parameters).

Upon reception of a paging indication, a UE that is IMSI attached for non-EPS services shall initiate a service request procedure or combined tracking area updating procedure as specified in clause 5.5.3.3.2. If the paging is received in EMM-IDLE mode, the UE shall respond immediately.

Upon reception of a paging indication, if the network supports the reject paging request feature and the MUSIM UE decides not to accept the paging the UE may initiate a service request procedure to reject the paging as specified in clause 5.6.1.1.

If the paging is received as a CS SERVICE NOTIFICATION message in EMM-CONNECTED mode, the UE may request upper layers input i.e. to accept or reject CS fallback before responding with an EXTENDED SERVICE REQUEST. The response is indicated in the CSFB response information element in the EXTENDED SERVICE REQUEST message in both EMM-IDLE and EMM-CONNECTED modes.

\*\*\* End change \*\*\*