**3GPP TSG-CT WG1 Meeting #126-eC1-206575**

**Electronic meeting, 15-23 October 2020 (was C1-206075)**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **24.301** | **CR** | **3445** | **rev** | **1** | **Current version:** | **17.0.0** |  |
|  | | | | | | | | |
| *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:*** | Recovering service on NR after network triggered detach indicating "re-attach not required" without EMM cause | | | | | | | | | |
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| ***Source to WG:*** | Apple, Nokia, Nokia Shanghai Bell | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5GProtoc17 | | | | |  | ***Date:*** | | | 2020-10-20 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17)* | |
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| ***Reason for change:*** | | When the NW initiates a detach towards the UE with detach type indicating "re-attach not required", but did not provide an EMM cause or did provide other EMM cause values than those treated in subclause 5.5.2.3.2, it is assumed that the current core network will not accept a new attach for at least T3402. However, a core network connected to a different RAT might still proceed an attach. With 5GC/NR voice services could also be provided by 5GC, thus it is proposed to remove the restriction to only allow the disabling of LTE for the CS mode of operations. In consequence it should also be possible to disable LTE rather than to perform a PLMN selection if the UE operates in PS mode of operation. Only if a UE supports solely LTE disabling of LTE is not an option at all. | | | | | | | | |
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| ***Summary of change:*** | | When the NW initiates a detach towards the UE with detach type indicating "re-attach not required", but did not provide an EMM cause or did provide other EMM cause values than those treated in subclause 5.5.2.3.2, it is proposed that a UE which supports other RATs besides LTE, may chose to disable LTE irrespective of the mode of operation and attempt to select GERAN, UTRAN, or NR radio access technology in order to recover service. | | | | | | | | |
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| ***Consequences if not approved:*** | | A UE which is detached by the network on LTE might not recover service on NR even NR is available. | | | | | | | | |
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| ***Clauses affected:*** | | 5.5.2.3.4 | | | | | | | | |
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|  | | **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:*** | |  | | | | | | | | |

##### 5.5.2.3.4 Abnormal cases in the UE

The following abnormal cases can be identified:

a) Transmission failure of DETACH ACCEPT message indication from lower layers

The detach procedure shall be progressed and the UE shall send the DETACH ACCEPT message.

b) DETACH REQUEST, other EMM cause values than those treated in subclause 5.5.2.3.2 or no EMM cause IE is included, and the Detach type IE indicates "re-attach not required"

The UE shall delete any GUTI, TAI list, last visited registered TAI, list of equivalent PLMNs, KSI, shall set the update status to EU2 NOT UPDATED and shall start timer T3402.

A UE operating in CS/PS mode 1 or CS/PS mode 2 of operation which is IMSI attached for non-EPS services is still IMSI attached for non-EPS services and shall set the update status to U2 NOT UPDATED.

A UE not supporting any of A/Gb mode, Iu mode or N1 mode may enter the state EMM-DEREGISTERED.PLMN-SEARCH in order to perform a PLMN selection according to 3GPP TS 23.122 [6]; otherwise the UE shall enter the state EMM-DEREGISTERED.ATTEMPTING-TO-ATTACH.

A UE supporting A/Gb mode, Iu mode or N1 mode shall

- enter the state EMM-DEREGISTERED and attempt to select GERAN, UTRAN, or NR radio access technology and proceed with the appropriate MM, GMM or 5GMM specific procedures. In this case, the UE may disable the E-UTRA capability (see subclause 4.5);

- enter the state EMM-DEREGISTERED.PLMN-SEARCH in order to perform a PLMN selection according to 3GPP TS 23.122 [6]; or

- enter the state EMM-DEREGISTERED.ATTEMPTING-TO-ATTACH.

If A/Gb mode or Iu mode is supported by the UE, the UE shall set the GPRS update status to GU2 NOT UPDATED and shall delete the GMM parameters P-TMSI, P-TMSI signature, RAI, GPRS ciphering key sequence number and shall enter the state GMM-DEREGISTERED.

If the UE is operating in single-registration mode, the UE shall in addition set the 5GMM state to 5GMM-DEREGISTERED, 5GS update status to 5U2 NOT UPDATED, and shall delete any 5G-GUTI, last visited registered TAI, TAI list and ngKSI.