**3GPP TSG-CT WG1 Meeting #137-eC1-22xxxx**

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

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
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|  | **24.501** | **CR** | **4595** | **rev** | **1** | **Current version:** | **17.7.1** |  |
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| *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:***  | UE handling on local emergency numbers |
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| ***Source to WG:*** | Huawei, HiSilicon |
| ***Source to TSG:*** | C1 |
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| ***Work item code:*** | 5GProtoc18 |  | ***Date:*** | 2022-08-11 |
|  |  |  |  |  |
| ***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:*** | For handling of local emergency numbers, there is a statement as per specified in sub 5.3.12 as below:*"If a REGISTRATION ACCEPT message is received via non-3GPP access from a PLMN in a country different from the current country of the UE, the UE shall keep the stored local emergency numbers list and the extended local emergency numbers list, if available.*".Also in sub 5.3.12A.1, there is a related statement as below::"*The UE shall ignore the presence or absence of local emergency numbers list, extended local emergency numbers list or both, in a REGISTRATION ACCEPT message received via non-3GPP access, unless conditions in subclause 5.3.12A.2 are met.*".When comparing above two statements, we can see:1. **In conditions:** In sub 5.3.12, it has detailed condition rather than “*a REGISTRATION ACCEPT message is received via non-3GPP access*”. While in sub 5.3.12A.1, it only has “*a REGISTRATION ACCEPT message received via non-3GPP access*” regardless of it is received “*from a PLMN in a country different from the current country of the UE*” or not. Hence, in condition, the text in sub 5.3.12A.1 is superset of the text in sub 5.3.12.
2. **In UE actions:** In sub 5.3.12, the UE will keep the current stored lists unchanged, while in sub 5.3.12A.1 the UE will ignore the received new list and no statement on the current stored lists and then by default the UE shall keep it unchanged as well. That is to say, the final result at the UE is the same for them.
3. **In statement completion:** the exception “*unless conditions in subclause 5.3.12A.2 are met.*” exists in sub 5.3.12A.1 but is missing in sub 5.3.12, which is required, otherwise, the statement is not complete.

Based on above comparison, one can see that the text in sub 5.3.12A.1 is superset of the text is sub 5.3.12 and more complete.Note that both sub 5.3.12 and sub 5.3.12A could cover the UE supporting registration or attach procedures via 3GPP access and registration procedures via non-3GPP access and hence, to avoid unnecessary overlapping and misalignment, it is better to only keep the text in sub 5.3.12A.1 which is more accurate and complete for the UE handling. |
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| ***Summary of change:*** | It proposes to remove the overlapped text in sub 5.3.12 about UE handling on local emergency numbers during the registration procedure via non-3GPP access and to make the text in sub 5.3.12A.1 more complete. |
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| ***Consequences if not approved:*** | The spec text is overlapped and not so aligned on the UE handling on local emergency numbers. |
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| ***Clauses affected:*** | 5.3.12, 5.3.12A.1 |
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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 ...  |
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| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

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

### 5.3.12 Handling of local emergency numbers

The additional requirements in subclause 5.3.12A apply to a UE supporting registration or attach procedures via 3GPP access and registration procedures via non-3GPP access.

In case of PLMN, the network may send a local emergency numbers list or an extended local emergency numbers list or both, in the REGISTRATION ACCEPT message, by including the Emergency number list IE and the Extended emergency number list IE, respectively. The Local emergency numbers list can be updated as described in 3GPP TS 24.301 [15], subclause 5.3.7.

In case of SNPN, the network may send an extended local emergency numbers list, in the REGISTRATION ACCEPT message, by including the Extended emergency number list IE. The network shall set the Extended Emergency Number List Validity (EENLV) field within the Extended emergency number list IE to "Extended Local Emergency Numbers List is valid only in the PLMN from which this IE is received". The UE shall consider the emergency number(s) received in the Extended emergency number list IE valid only in the SNPN from which this IE is received regardless of the received value of the EENLV field within the Extended emergency number list IE.

The UE shall store the local emergency numbers list and the extended local emergency numbers list, as provided by the network. The local emergency numbers list stored in the UE shall be replaced on each receipt of the Emergency number list IE. The extended local emergency numbers list stored in the UE shall be replaced on each receipt of the Extended emergency number list IE. The received local emergency numbers list or the received extended local emergency numbers list or both shall be provided to the upper layers.

The emergency number(s) received in the Emergency number list IE are valid only in PLMNs in the same country as the PLMN from which this IE is received. If no Emergency number list IE is contained in the REGISTRATION ACCEPT message, then the stored local emergency numbers list in the UE shall be kept, except if the UE has successfully registered to a PLMN in a country different from that of the PLMN that sent the list.

The emergency number(s) received in the Extended emergency number list IE are valid only in:

- PLMNs in the same country as the PLMN from which this IE is received, if the Extended Emergency Number List Validity (EENLV) field within the Extended emergency number list IE indicates "Extended Local Emergency Numbers List is valid in the country of the PLMN from which this IE is received"; and

- the PLMN from which this IE is received, if the EENLV field within the Extended emergency number list IE indicates "Extended Local Emergency Numbers List is valid only in the PLMN from which this IE is received"; and

- the SNPN from which this IE is received, regardless of the value of the EENLV field within the Extended emergency number list IE.

If no Extended Local Emergency Numbers List is contained in the REGISTRATION ACCEPT message, and the registered PLMN or the registered SNPN has not changed, then the stored Extended Local Emergency Numbers List in the UE shall be kept. If no Extended Local Emergency Numbers List is contained in the REGISTRATION ACCEPT message, but the registered PLMN or the registered SNPN has changed, then:

- if the last received indication in the EENLV field within the Extended emergency number list IE indicates "Extended Local Emergency Numbers List is valid only in the PLMN from which this IE is received", the stored Extended Local Emergency Numbers List in the UE shall be deleted; and

- if the last received indication in the EENLV field within the Extended emergency number list IE indicates "Extended Local Emergency Numbers List is valid in the country of the PLMN from which this IE is received" the list shall be kept except if the UE has successfully registered to a PLMN in a country different from that of the PLMN that sent the stored list.

NOTE: To prevent the misrouting of emergency calls, all operators within a country need to follow the regulation or agree on the setting of the Extended emergency number list IE in accordance to national agreement – either to indicate validity within a country or to indicate validity only within the PLMN.

The local emergency numbers list and the extended local emergency numbers list shall be deleted at switch off or removal of the USIM. The UE shall be able to store up to ten entries in the local emergency numbers list and up to twenty entries in the Extended local emergency numbers list, received from the network.

For the use of the local emergency numbers list and the extended local emergency numbers list by the UE see 3GPP TS 24.301 [15], subclause 5.3.7.

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

#### 5.3.12A.1 General

The requirements in subclause 5.3.12 with the clarifications and additional conditions in subclause 5.3.12A apply to a UE supporting:

- attach procedures (see 3GPP TS 24.301 [15]) or registration procedures via 3GPP access; and

- registration procedures via non-3GPP access.

The UE shall ignore the presence or absence of local emergency numbers list, extended local emergency numbers list or both, in a REGISTRATION ACCEPT message received via non-3GPP access and keep the stored local emergency numbers list and the extended local emergency numbers list, if available, unless conditions in subclause 5.3.12A.2 are met.

For the purposes of subclause 5.3.12A, the UE is considered neither registered nor attached over 3GPP access if:

1) the UE supports 3GPP access to EPC, the UE does not support 3GPP access to 5GC, and:

a) the EMM sublayer is in the EMM-NULL state, EMM-DEREGISTERED state or EMM-DEREGISTERED-INITIATED state; or

2) the UE supports 3GPP access to 5GC, the UE does not support 3GPP access to EPC, and:

a) the 5GMM sublayer is in the 5GMM-NULL state, 5GMM-DEREGISTERED state or 5GMM-DEREGISTERED-INITIATED state; or

3) supports both 3GPP access to EPC and 3GPP access to 5GC, and:

a) the EMM sublayer is in the EMM-NULL state, EMM-DEREGISTERED state or EMM-DEREGISTERED-INITIATED state; and

a) the 5GMM sublayer is in the 5GMM-NULL state, 5GMM-DEREGISTERED state or 5GMM-DEREGISTERED-INITIATED state.

\* \* \* End of Change \* \* \* \*