**3GPP TSG-CT WG1 Meeting #131-eC1-214524**

**E-meeting, 19-27 August 2021**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **24.501** | **CR** | **3491** | **rev** | **-** | **Current version:** | **17.3.1** |  |
|  |
| *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 | **X** | Core Network | **X** |

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| ***Title:***  | Introducing the MINT feature |
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| ***Source to WG:*** | vivo |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | MINT |  | ***Date:*** | 2021-08-02 |
|  |  |  |  |  |
| ***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 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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
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| ***Reason for change:*** | Considering the requirements for MINT as specified in TS 22.261, the update of stage 3 aspects is needed to complete normative stage 3 based on the conclusions in TR 24.811. |
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| ***Summary of change:*** | Add a new clause 4.X for general description on MINT. |
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| ***Consequences if not approved:*** | The feature of MINT is not reflected in stage 3. |
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| ***Clauses affected:*** | 4.X(new) |
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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:*** |  |

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

## 4.X Minimization of service Interruption

Minimization of service Interruption (MINT) is a feature that is optional at both the UE and the network and which aims to enable a UE to obtain connectivity service from a PLMN offering disaster roaming service in the area where a disaster condition applies.

The UE supporting MINT can perform disaster roaming only if there is no other available PLMN except for PLMNs in the forbidden PLMN list, the UE is configured with a "list of PLMN(s) to be used in disaster condition" including at least one enrty, and the UE cannot get service from the PLMN with disaster condition over non-3GPP access.

If the UE supports MINT:

a) the UE shall perform the network selection procedures for disaster condition to obtain disaster roaming service when the disaster condition applies as specified in 3GPP TS 23.122 [5]; and

b) if the UE performs a registration procedure for initial registration, the UE shall set the 5GS registration type to the value "disaster roaming" indicating that the registration request is for disaster roaming service in the REGISTRATION REQUEST message.

The 'list of PLMN(s) to be used in disaster condition' may be pre-configured in USIM or provided by HPLMN after a successful registration procedure. While roaming, the Registered PLMN may provide the 'list of PLMN(s) to be used in disaster condition' after a successful registration procedure to the UE. The UE shall ignore this information if the 'list of PLMN(s) to be used in disaster condition' is empty.

If the network supports MINT:

a) the UE shall receive the following information from the PLMN offering disaster roaming service:

- an indication of accessibility for disaster roamers; and

- optionally, a 'list of PLMN(s) with disaster condition for which disaster roaming is offered'.

Editor's note: It is FFS about the usage of "an indication of accessibility for disaster roamers" without the 'list of PLMN(s) with Disaster condition for which disaster roaming is offered".

b) when the AMF in the PLMN offering disaster roaming service receives a Registration Request message with a 5GS registration type set to "disaster roaming", the AMF:

- shall check whether or not the UE is able to access the disaster roaming service based on the SUCI or 5G-GUTI provided by the UE;

- shall check that the UE is registering in a tracking area which is part of the disaster area of the PLMN with disaster condition; and

- shall determine the registration area for the UE with the consideration of the overlap between the tracking area and the area of the disaster condition.

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