**3GPP TSG-CT WG1 Meeting #133-bis-eC1-22xxxx**

**E-meeting, 11-19 November 2021**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **24.571** | **CR** | **0009** | **rev** | **1** | **Current version:** | **17.0.0** |  |
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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 | **x** |

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| ***Title:***  | Clarification on the LMF ID |
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| ***Source to WG:*** | vivo |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | 5G\_eLCS\_ph2 |  | ***Date:*** | 2022-01-07 |
|  |  |  |  |  |
| ***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 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 following statements in the TS 23.273:*When receiving a NAS message from UE, including an LMF ID together with a LPP message (refer to step 25 in clause 6.3.1 for event reporting for a deferred 5GC-MT-LR), AMF sends the LPP message to the LMF, as indicated by the LMF ID.**NOTE 2: Description on how UE encapsulates the LMF ID in the NAS message is documented in TS 24.571 [36].*The LMF ID may be encapsulated in the UL NAS TRANSPORT message to the AMF, which can assist the route of the LPP message to the identified LMF. Nevertheless, there is not captured in the TS 24.571.In the subclause 5.3.2 in TS 24.571, the Routing Identifier and correlation ID are also used for the route of the LPP message:*The Routing identifier is the Correlation ID, which is defined in 3GPP TS 29.572 [6], so that the AMF can map the Routing identifier to the LMF and the Correlation identifier when the AMF receives a UL NAS TRANSPORT message including the responding LPP message.*However, in the TS 29.572, the Correlation ID and LMF ID (which is mentioned as LMF identification) are two different data type. How to handle these two Routing identifier in the NAS TRANSPORT messages is not specified. |
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| ***Summary of change:*** | Clarification on that the LMF ID is used as Routing Identifier for routing the LCS messages to the particular LMF. |
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| ***Consequences if not approved:*** | Missing specification of the LMF ID. |
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| ***Clauses affected:*** | 5.3.1.x(new), 5.3.1.x(new), 5.3.2.1, 5.3.2.2 |
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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 \*\*\*\*\*

#### 5.3.1.x Downlink Positioning Information Transport using LCS messages

The AMF shall set the Payload container type to "Location services message container " in the DL NAS TRANSPORT message.

The AMF includes a Routing Identifier in the Additional information IE of the DL NAS TRANSPORT message which identifies the LMF from which the Location service messages payload was received. This association of the Routing Identifier is provided at the LCS level: the UL NAS TRANSPORT message carries an LCS message that is a response to or instigated by the LCS message in the DL NAS TRANSPORT message.

The Routing Identifier is the LMF ID, which is defined in 3GPP TS 29.572 [6], so that the AMF can route the Location service messages payload to the LMF when the AMF receives a UL NAS TRANSPORT message including the responding LCS message.

\*\*\*\*\* Next change \*\*\*\*\*

#### 5.3.1.x Uplink Positioning Information Transport using LCS messages

The UE shall set the Payload container type to "Location services message container " in the UL NAS TRANSPORT message.

The UE includes a Routing Identifier received in the Additional Information IE of the DL NAS TRANSPORT message in the Additional Information IE of the UL NAS TRANSPORT message.

The Routing Identifier is the LMF ID, which is defined in 3GPP TS 29.572 [6], so that the AMF can the route the LPP message to the identified LMF when the AMF receives the Additional Information IE included in the UL NAS TRANSPORT message. If the Additional Information IE is not included in the UL NAS TRANSPORT message, the AMF provide the LCS message to the location service application.

\*\*\*\*\* Next change \*\*\*\*\*

#### 5.3.2.1 Downlink Positioning Information Transport using LPP messages

The AMF shall set the Payload container type to "LPP message container" in the DL NAS TRANSPORT message.

The AMF includes a Routing Identifier in the Additional information IE of the DL NAS TRANSPORT message which identifies the LMF and the positioning session between the AMF and LMF when a positioning session is being used.

The Routing Identifier is the Correlation ID, which is defined in 3GPP TS 29.572 [6], so that the AMF can map the Routing identifier to the LMF and the Correlation identifier when the AMF receives a UL NAS TRANSPORT message including the responding LPP message.

\*\*\*\*\* First change \*\*\*\*\*

#### 5.3.2.2 Uplink Positioning Information Transport using LPP messages

The UE shall set the Payload container type to "LPP message container" in the UL NAS TRANSPORT message.

The UE includes a Routing Identifier received in the Additional Information IE of the DL NAS TRANSPORT message in the Additional Information IE of the UL NAS TRANSPORT message. This association of the Routing Identifier is provided at the LPP level: the UL NAS TRANSPORT message carries an LPP message that is a response to or instigated by the LPP message in the DL NAS TRANSPORT message.

The Routing Identifier is the Correlation ID, which is defined in 3GPP TS 29.572 [6], so that the AMF can map the Routing Identifier to the Correlation identifier when the AMF receives the UL NAS TRANSPORT message.

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