**3GPP TSG-SA5 Meeting #155 *S5-242699rev1***

**Jeju, South Korea, 27 - 31 May 2024**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **32.271** | **CR** | **0021** | **rev** | **1** | **Current version:** | **18.0.0** |  |
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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 |  | Radio Access Network |  | Core Network | **X** |

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| ***Title:***  | Add principles for Ranging and Sidelink Positioning Charging |
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| ***Source to WG:*** | China Telecom |
| ***Source to TSG:*** | S5 |
|  |  |
| ***Work item code:*** | DUMMY |  | ***Date:*** | 2024-05-16 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***Release:*** | Rel-19 |
|  | *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:*** | To support Ranging and Sidelink Positioning Charging, principles needs to be introduced. |
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| ***Summary of change:*** | Add charging principles for Ranging and Sidelink Positioning |
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| ***Consequences if not approved:*** | Charging for Ranging and Sidelink Positioning will not be supported |
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| ***Clauses affected:*** | 5.x (new) |
|  |  |
|  | **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:*** |  |

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| **First change** |

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## 5.x LCS converged charging scenarios

### 5.x.1 Basic principles

#### 5.x.1.1 General

Converged charging may be performed by the GMLC interacting with CHF using Nchf specified in TS 32.290 [yy] and TS 32.291 [zz]. In order to provide the data required for the charging activities outlined in TS 32.240 [1] (Credit-Control, accounting, billing, statistics etc.), the GMLC shall be able to perform converged charging for Ranging based services and Sidelink Positioning defined in TS 23.586 [xx].

The GMLC shall be able to perform converged charging by interacting with CHF, for charging data related to Ranging based services and Sidelink Positioning. The Charging Data Request and Charging Data Response are exchanged between the GMLC and the CHF, based on PEC scenarios specified in TS 32.290 [yy]. The Charging Data Request is issued by the GMLC towards the CHF when certain conditions (chargeable events) are met.

The contents and purpose of each charging event that triggers interaction with CHF, as well as the chargeable events that trigger them, are described in the following sub-clauses.

A detailed formal description of the converged charging parameters defined in the present document is to be found in TS 32.291 [zz].

#### A detailed formal description of the CDR parameters defined in the present document is to be found in TS 32.298 [51].5.x.1.2 Applicable Triggers in the GMLC

##### 5.x.1.2.1 General

When a charging event is issued towards the CHF, it includes details such as Subscriber identifier (e.g. SUPI).

Each trigger condition (i.e. chargeable event) defined for the LCS converged charging functionality, is specified with the associated behaviour when they are met.

Table 5.x.1.2.1.1 summarizes the set of default trigger conditions and their category which shall be supported by the GMLC when charging is active for the corresponding GMLC functionality related to Ranging and Sidelink Positioning. For "immediate report" category, the table also provides the corresponding Charging Data Request message sent from GMLC towards the CHF.

Table 5.x.1.2.1.1: Default Trigger conditions in GMLC

| Trigger Conditions | Trigger level | Default category | CHF allowed to change category | CHF allowed to enable and disable | Message when "immediate reporting" category |
| --- | --- | --- | --- | --- | --- |
| Receive User Location from AMF | - | Immediate | Not Applicable | Not Applicable | PEC: Charging Data Request [Event] |

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| **End of changes** |