**3GPP TSG-SA5 Meeting #155 *S5-244227rev1***

**Maastricht, NL, 19 - 23 August 2024**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **32.271** | **CR** | **0025** | **rev** | **-** | **Current version:** | **19.0.0** |  |
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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:***  | Introduction of Message content for Ranging and Sidelink Positioning converged charging |
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| ***Source to WG:*** | China Telecom |
| ***Source to TSG:*** | S5 |
|  |  |
| ***Work item code:*** | Ranging\_SL\_CH |  | ***Date:*** | 2024-08-09 |
|  |  |  |  |  |
| ***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:*** | The message content for Ranging and Sidelink Positioning converged charging is missing. |
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| ***Summary of change:*** | Add message content for Ranging and Sidelink Positioning converged charging |
|  |  |
| ***Consequences if not approved:*** | Charging for Ranging and Sidelink Positioning will not be supported |
|  |  |
| ***Clauses affected:*** | 6.2x (new) |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** | **X** |  |  Other core specifications  | TS/TR 32.271 CR 0026  |
| ***affected:*** |  | **X** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
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| ***Other comments:*** | For the descripiton of “Ranging and Sidelink Positioning Charging Information” in Table 6.2x.1.2.1.1 and Table 6.2x.3.2.1, clause 6.3.1.y is linked to the TS 32.271 CR 0026. |
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| ***This CR's revision history:*** |  |

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| **First change** |

## 6.2x Data description for LCS converged charging

### 6.2x.1 Message contents

#### 6.2x.1.1 General

The Charging Data Request and Charging Data Response are specified in TS 32.290 [55] and include charging information. The Charging Data Request can be of type [Event].

Table 6.2x.1.1.1 describes the use of these messages for converged charging.

Table 6.2x.1.1.1: Converged charging messages reference table

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| --- | --- | --- |
| **Message** | **Source** | **Destination** |
| Charging Data Request | GMLC | CHF |
| Charging Data Response | CHF | GMLC |

The following clauses describe the different fields used in the Charging Data messages and the category in the tables is used according to the charging data configuration defined in clause 5.4 of TS 32.240 [1].

#### 6.2x.1.2 Structure for the converged charging message formats

##### 6.2x.1.2.1 Charging Data Request message

Table 6.2x.1.2.1.1 illustrates the basic structure of a Charging Data Request message as used for LCS converged charging.

Table 6.2x.1.2.1.1: Charging Data Request message contents

|  |  |  |
| --- | --- | --- |
| **Information Element** | **Category** | **Description** |
| Session Identifier | OC | Described in TS 32.290 [55] |
| Subscriber Identifier | OM | Described in TS 32.290 [55], and may hold the identifier of the AF as an alternative to tenant identifier. |
| Tenant Identifier | OC | Described in TS 32.290 [55], and holds the identifier of the AF. |
| NF Consumer Identification | M | Described in TS 32.290 [55] |
| NF Functionality | M | Described in TS 32.290 [55]. |
| NF Name | OC | Described in TS 32.290 [55]. |
| NF Address | OC | Described in TS 32.290 [55]. |
| NF PLMN ID | OC | Described in TS 32.290 [55]. |
| Charging Identifier | OM | Described in TS 32.290 [55]. |
| Invocation Timestamp | M | Described in TS 32.290 [55] |
| Invocation Sequence Number | M | Described in TS 32.290 [55] |
| One-time Event | OC | Described in TS 32.290 [55]. |
| One-time Event Type | OC | Described in TS 32.290 [55]. |
| Supported Features | OC | Described in TS 32.290 [55]. |
| Service Specification information | OC | Described in TS 32.290 [55]. |
| Multiple Unit Usage | OC | This field contains the parameters for the quota management request and/or usage reporting. |
| Rating Group | M | Described in TS 32.290 [55] |
| Requested Unit | OC | Described in TS 32.290 [55] |
| Ranging and Sidelink Positioning Charging Information | OC | This field holds the Ranging and Sidelink Positioning specific information described in clause 6.3.1.y. |

##### 6.2x.1.2.2 Charging Data Response message

Table 6.2x.1.2.2.1 illustrates the basic structure of a Charging Data Response message as used for LCS converged charging.

Table 6.2x.1.2.2.1: Charging Data Response message content

|  |  |  |
| --- | --- | --- |
| **Information Element** | **Category** | **Description** |
| Session Identifier | OC | Described in TS 32.290 [55] |
| Invocation Timestamp | M | Described in TS 32.290 [55] |
| Invocation Result | OC | Described in TS 32.290 [55] |
| Invocation Result | OC | Described in TS 32.290 [57] |
| Failed parameter | OC | Described in TS 32.290 [57] |
| Failure Handling | OC | Described in TS 32.290 [57] |
| Invocation Sequence Number | M | Described in TS 32.290 [55] |
| Session Failover | OC | Described in TS 32.290 [55] |
| Supported Features | OC | Described in TS 32.290 [55] |
| Multiple Unit Information | OC | Described in TS 32.290 [55] |
| Result Code | OC | Described in TS 32.290 [55] |
| Rating Group | OM | Described in TS 32.290 [55] |
| Validity Time | OC | Described in TS 32.290 [55] |

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| **Next change** |

### 6.2x.2 Ga message contents

Refer to clause 5.4.4.

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| **Next change** |

### 6.2x.3 CDR description on the Bl interface

#### 6.2x.3.1 General

This clause describes the CDR content and format generated for LCS converged charging.

The following tables provide a brief description of each CDR parameter. The category in the tables is used according to the charging data configuration defined in clause 5.4 of TS 32.240 [1]. Full definitions of the CDR parameters, sorted by the name in alphabetical order, are provided in TS 32.298 [7].

#### 6.2x.3.2 LCS charging CHF CDR data

If enabled, CHF CDRs for LCS converged charging shall be produced for LCS chargeable events.

The fields of LCS converged charging CHF CDR are specified in table 6.2x.3.2-1.

Table 6.2x.3.2.1: LCS converged charging CHF record data

| Field | Category | Description |
| --- | --- | --- |
| Record Type  | M | Described in TS 32.298 [51]. |
| Recording Network Function ID | OM | Described in TS 32.298 [51]. |
| Tenant Identifier | OC | Described in TS 32.298 [51]. |
| NF Consumer Information | M | This field holds the information of the entity that used the charging service (i.e. GMLC). |
| NF Functionality | M | Described in TS 32.298 [51]. |
| NF Name | OC | Described in TS 32.298 [51]. |
| NF Address | OC | Described in TS 32.298 [51]. |
| NF PLMN ID | OC | Described in TS 32.298 [51]. |
| Record Opening Time | M | Described in TS 32.298 [51]. |
| Duration | M | Described in TS 32.298 [51]. |
| Record Sequence Number | C | Described in TS 32.298 [51]. |
| Cause for Record Closing  | M | Described in TS 32.298 [51]. |
| Local Record Sequence Number | OM | Described in TS 32.298 [51]. |
| Record Extensions | OC | Described in TS 32.298 [51]. |
| Ranging and Sidelink Positioning Charging Information | OC | This field holds the Ranging and Sidelink Positioning charging information defined in clause 6.3.1.y. |

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| **End of changes** |