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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **3GPP TSG-SA5 Meeting #142-e *S5-222312rev4***  **e-meeting, 4 - 12 April 2022**   |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | *CR-Form-v12.1* | | | | | | | | | | **CHANGE REQUEST** | | | | | | | | | |  | | | | | | | | | |  | **32.277** | **CR** | **0036** | **rev** | **0** | **Current version:** | **17.1.0** |  | |  | | | | | | | | | | *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** |
|  | | | | | | | | | | | | | | | | | |
| ***Title:*** | Introduction of Message content for 5G ProSe converged charging | | | | | | | | | | | | | | | | |
|  |  | | | | | | | | | | | | | | | | |
| ***Source to WG:*** | CATT | | | | | | | | | | | | | | | | |
| ***Source to TSG:*** | SA5 | | | | | | | | | | | | | | | | |
|  |  | | | | | | | | | | | | | | | | |
| ***Work item code:*** | 5G\_ProSe | | | | | | | | |  | ***Date:*** | | | 2022-3-15 | | | |
|  |  | | | | |  | | | | |  | | |  | | | |
| ***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 can be 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)* | | | | |
|  |  | | | | | | | | | | | | | | | | |
| ***Reason for change:*** | | The message content over Nchf for 5G ProSe converged charging is missing | | | | | | | | | | | | | | | |
|  | |  | | | | | | | | | | | | | | | |
| ***Summary of change:*** | | Introduce new clause on message content description for 5GDDNMF over Nchf | | | | | | | | | | | | | | | |
|  | |  | | | | | | | | | | | | | | | |
| ***Consequences if not approved:*** | | No charging for 5G ProSe. | | | | | | | | | | | | | | | |
|  | |  | | | | | | | | | | | | | | | |
| ***Clauses affected:*** | | 6.2x (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 ... | | | | | |
|  | |  | | | | | | | | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | | | | | | | | |
|  | |  | | | | | | | | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | | | | | | | | |

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| --- |
| **1st modified section** |

## 6.2x Data description for ProSe 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, Initial, Update, Termination].

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

|  |  |  |
| --- | --- | --- |
| **Message** | **Source** | **Destination** |
| Charging Data Request | 5G DDNMF | CHF |
| Charging Data Response | CHF | 5G DDNMF |

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 5G ProSe 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 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] |
| Retransmission Indicator | OC | Described in TS 32.290 [55] |
| One-time Event | OC | This field indicates, if included, that this is a one-time event and that there will be no update or termination. |
| One-time Event Type | OC | Described in TS 32.290 [55]. |
| Notify URI | OC | This field contains URI to which notifications are sent by the CHF. The latest received value shall always be used at notifications. |
| Supported Features | OC | Described in TS 32.290 [55]. |
| Service Specification information | OC | This field holds the ProSe specific information described in clause 6.x. |
| Triggers | OC | This field is described in TS 32.290 [55] and holds the ProSe specific triggers described in clause 5.x |
| 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] |
| Time | OC | Described in TS 32.290 [55] |
| Total Volume | OC | Described in TS 32.290 [55] |
| Uplink Volume | OC | Described in TS 32.290 [55] |
| Downlink Volume | OC | Described in TS 32.290 [55] |
| Service Specific Units | OC | Described in TS 32.290 [55] |
| Used Unit Container | OC | Described in TS 32.290 [55] |
| Service Identifier | OC | Described in TS 32.290 [55] |
| Quota management Indicator | OC | Described in TS 32.290 [55] |
| Triggers | OC | Described in TS 32.290 [55] |
| PC5 Container Information | OC | This field holds the 5G ProSe specific information described in clause 6.3. |
| Trigger Timestamp | OC | Described in TS 32.290 [55] |
| Time | OC | Described in TS 32.290 [55] |
| Total Volume | OC | Described in TS 32.290 [55] |
| Uplink Volume | OC | Described in TS 32.290 [55] |
| Downlink Volume | OC | Described in TS 32.290 [55] |
| Service Specific Unit | OC | Described in TS 32.290 [55] |
| Event Time Stamps | OC | Described in TS 32.290 [55] |
| Local Sequence Number | OM | Described in TS 32.290 [55] |
| ProSe Information | OM | This field holds the 5G ProSe specific information described in clause 6.3. |

##### 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 ProSe 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 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] |
| Triggers | 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] |
| Granted Unit | OC | Described in TS 32.290 [55] |
| Tariff Time Change | OC | Described in TS 32.290 [55] |
| Time | OC | Described in TS 32.290 [55] |
| Total Volume | OC | Described in TS 32.290 [55] |
| Uplink Volume | OC | Described in TS 32.290 [55] |
| Downlink Volume | OC | Described in TS 32.290 [55] |
| Service Specific Units | OC | Described in TS 32.290 [55] |
| Validity Time | OC | Described in TS 32.290 [55] |
| Final Unit Indication | OC | Described in TS 32.290 [55] |
| Time Quota Threshold | OC | Described in TS 32.290 [55] |
| Volume Quota Threshold | OC | Described in TS 32.290 [55] |
| Unit Quota Threshold | OC | Described in TS 32.290 [55] |
| Quota Holding Time | OC | Described in TS 32.290 [55] |
| Triggers | 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.

|  |
| --- |
| **End of changes** |