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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **3GPP TSG-SA5 Meeting #142-e *S5-222314rev1*****e-meeting, 4 - 12 April 2022**

|  |
| --- |
| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **32.277** | **CR** |  | **rev** | **-** | **Current version:** |  |  |
|  |
| *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 Detailed message format for converged charging |
|  |  |
| ***Source to WG:*** |  |
| ***Source to TSG:*** | SA5 |
|  |  |
| ***Work item code:*** | 5G\_ProSe |  | ***Date:*** |  |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***Release:*** |  |
|  | *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)* |
|  |  |
| ***Reason for change:*** | The charging information over Nchf for 5G ProSe converged charging is missing |
|  |  |
| ***Summary of change:*** | Introduce 5G ProSe information over Nchf |
|  |  |
| ***Consequences if not approved:*** | No charging for 5G ProSe. |
|  |  |
| ***Clauses affected:*** | 6.x.3(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 needs to be implemented after CR#00xy (inside chapter 6.x of CR#00xy\_S5-222313) |
|  |  |
| ***This CR's revision history:*** |  |

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

### 6.x.3 Detailed message format for converged charging

The following clause specifies per Operation Type the charging data for 5G ProSe converged charging.

The Operation types are listed in the following order: I [Initial] / U (Update)/T [Termination]/E [event]. Therefore, when all Operation types are possible it is marked as IUTE. If only some Operation types are allowed for a node, only the appropriate letters are used (e.g. IUT or E) as indicated in the table heading. The omission of an Operation type for a particular field is marked with "-" (e.g. I-E). Also, when an entire field is not allowed in a node the entire cell is marked as "-".

Table 6.x.3.1 illustrates the basic structure of the supported fields in the Charging Data Request for 5G ProSe converged charging.

Table 6.x.3.1: Supported fields in Charging Data Request message

| Information Element | Node Type | DirectDiscovery | DirectCommunication |
| --- | --- | --- | --- |
| Supported Operation Types | I/U/T/E | I/U/T/E |
| Session Identifier | --E | IUTE |
| Subscriber Identifier | --E | IUTE |
| NF Consumer Identification | --E | IUTE |
| Invocation Timestamp | --E | IUTE |
| Invocation Sequence Number | --E | IUTE |
| Retransmission Indicator | --- | --- |
| One-time Event | --E | --E |
| One-time Event Type | --E | --E |
| Notify URI | I-- | I-- |
| Triggers | --E | IUTE |
| Multiple Unit Usage | --E | IUTE |
|  **Service Information with ProSe Information** |
| Announcing PLMN ID | ---E | - |
| Announcing UE HPLMN Identifier | ---E | - |
| Announcing UE VPLMN Identifier | ---E | - |
| Monitoring UE HPLMN Identifier | ---E | - |
| Monitoring UE VPLMN Identifier | ---E | - |
| Discoverer UE HPLMN Identifier | ---E | - |
| Discoverer UE VPLMN Identifier | ---E | - |
| Discoveree UE HPLMN Identifier | ---E | - |
| Discoveree UE VPLMN Identifier | ---E | - |
| Monitored PLMN Identifier | ---E | - |
| ProSe Application ID | ---E | - |
| Application ID | ---E | IUTE |
| Application Specific Data | - | IUTE |
| ProSe functionality | ---E | IUTE |
| ProSe Event Type | ---E | - |
| Direct Discovery Model | ---E |  |
| Validity Period | ---E |  |
| Role of UE | ---E |  |
| ProSe Request Timestamp | ---E |  |
| PC3 Protocol Cause | ---E |  |
| Monitoring UE Identifier | ---E |  |
| Requested Application Layer User ID | ---E |  |
| Requested PLMN Identifier | ---E |  |
| Time Window | ---E |  |
| Range Class | ---E |  |
| Proximity Alert Indication | ---E |  |
| Proximity Alert Timestamp | ---E |  |
| Proximity Cancellation Timestamp | ---E |  |
| Relay IP address | - | IUTE |
| ProSe UE-to-Network Relay UE ID  | - | IUTE |
| ProSe Destination Layer-2 ID | - | IUTE |
| Coverage Info | - | IUTE |
| Radio Parameter Set Info | - | IUTE |
| Transmitter Info | - | IUTE |
| Time of First Transmission | - | IUTE |
| Time of First Reception | - | IUTE |
| Transmission Data Container | - | IUTE |
| Reception Data Container | - | IUTE |
| PC5 Radio Technology | ---E | - |

Table 6.x.3.2 illustrates the basic structure of the supported fields in the Charging Data Response for 5G ProSe converged charging.

Table 6.x.3.2: Supported fields in *Charging Data Response* Message

| Information Element | Node Type | DirectDiscovery | DirectCommunication |
| --- | --- | --- | --- |
| Supported Operation Types | I/U/T/E | I/U/T/E |
| Session Identifier | --E | IUTE |
|  |  |  |
|  |  |  |
| Invocation Timestamp | --E | IUTE |
| Invocation Result | --E | IUTE |
| Invocation Sequence Number | --E | IUTE |
| Session Failover | - | IUTE |
| Supported Features | - | IUTE |
|  |  |  |
|  |  |  |
|  |  |  |
| Triggers | I--E | IUTE |
| Multiple Unit Usage | --E | IUTE |
| Result Code | --E | IUTE |
| Rating Group | --E | IUTE |
| Granted Unit | --E | IUTE |
| Tariff Time Change | --E | IUTE |
| Time | --E | IUTE |
| Total Volume | --E | IUTE |
| Uplink Volume | --E | IUTE |
| Downlink Volume | --E | IUTE |
| Service Specific Units | --E | IUTE |
| Validity Time | --E | IUTE |
| Final Unit Indication | --E | IUTE |
| Time Quota Threshold  | --E | IUTE |
| Volume Quota Threshold  | --E | IUTE |
| Unit Quota Threshold  | --E | IUTE |
| Quota Holding Time | --E | IUTE |
| Triggers | --E | IUTE |
|  |

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