**3GPP TSG-SA5 Meeting #141-e *S5-221308***

**e-meeting, 17 -26 January 2022**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **32.255** | **CR** | **0367** | **rev** | **-** | **Current version:** | **17.4.1** |  |
|  | | | | | | | | |
| *For* [***HELP***](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:*** | Correcting charging rule base name | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson LM | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI17 | | | | |  | ***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 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 charging rule base name is not part of PDU session information. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Removing the charging rule base name from PDU session information. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The charging rule base name could be interpreted as belonging to the PDU session information which could lead to interoperability issues. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.2.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

|  |
| --- |
| **First change** |

### 6.2.2 Detailed message format for converged charging

The following clause specifies per Operation Type the charging data that are sent by SMF for 5G data connectivity converged charging or offline only 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 (i.e. IUT or E) as indicated in the table heading. The omission of an Operation Type for a particular field is marked with "-" (i.e. IU-E). Also, when an entire field is not allowed in a node the entire cell is marked as "-".

Table 6.2.2.1 defines the basic structure of the supported fields in the *Charging Data* Request message for 5G data connectivity converged charging or offline only charging.

Table 6.2.2.1: Supported fields in *Charging Data Request* message

| Information Element | | | Functionality of SMF | FBC | | | QBC | | | FBC | | | QBC | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Charging Service | Converged Charging | | | Converged Charging | | | Offline Only Charging | | | Offline Only Charging | | |
| Supported Operation Types | I/U/T/E | | | I/U/T/E | | | I/U/T/E | | | I/U/T/E | | |
| Session Identifier | | | | -UT- | | | -UT- | | | -UT- | | | -UT- | | |
| Subscriber Identifier | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| NF Consumer Identification | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| Invocation Timestamp | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| Invocation Sequence Number | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| Retransmission Indicator | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| Notify URI | | | | IU- | | | IU- | | | IU- | | | IU- | | |
| Supported Features | | | | IU- | | | IU- | | | - | | | - | | |
| Service Specification Information | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| Triggers | | | | -UT- | | | -UT- | | | -UT- | | | -UT- | | |
| Multiple Unit Usage | | | | IUT- | | | - | | | IUT- | | | - | | |
| Rating Group | | | | IUT- | | | - | | | IUT- | | | - | | |
| Requested Unit | | | | IU-- | | | - | | | - | | | - | | |
| Used Unit Container | | | | -UT- | | | - | | | -UT- | | | - | | |
| Triggers | | | | -UT- | | | - | | | -UT- | | | - | | |
| PDU Container Information | | | | -UT- | | | - | | | -UT- | | | - | | |
| UPF ID | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| PDU Session Charging Information | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| Charging Id | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| Home Provided Charging Id | | | | -UT- | | | -UT- | | | -UT- | | | -UT- | | |
| User Information | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| User Location Info | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| MA PDU Non 3GPP User Location Info | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| User Location Time | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| MA PDU Non 3GPP User Location Time | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| UE Time Zone | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| Presence Reporting Area Information | | | | -UT- | | | -UT- | | | -UT- | | | -UT- | | |
| PDU Session Information | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| PDU Session ID | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| Network Slice Instance Identifier | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| PDU Type | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| PDU Address | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| SSC Mode | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| MA PDU session information | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| SUPI PLMN ID | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| Serving Network Function ID | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| Serving CN PLMN ID | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| RAT Type | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| MA PDU Non 3GPP RAT Type | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| Data Network Name Identifier | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| DNN Selection Mode | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| Authorized QoS Information | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| Subscribed QoS Information | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| Authorized Session-AMBR | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| Subscribed Session-AMBR | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| PDU session start Time | | | | I--- | | | I--- | | | I--- | | | I--- | | |
| PDU session stop Time | | | | --T- | | | --T- | | | --T- | | | --T- | | |
| Diagnostics | | | | --T- | | | --T- | | | --T- | | | --T- | | |
| Enhanced Diagnostics | | | | --T- | | | --T- | | | --T- | | | --T- | | |
| Charging Characteristics | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| Charging Characteristics Selection Mode | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| 3GPP PS Data Off Status | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| Session Stop Indicator | | | | --T- | | | --T- | | | --T- | | | --T- | | |
| Redundant Transmission Type | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| PDU Session Pair ID | | | | IUT- | | | IUT- | | | IUT- | | | IUT- | | |
| Unit Count Inactivity Timer | | | | IU-- | | | - | | | IU-- | | | - | | |
| RAN Secondary RAT Usage Report | | | | -UT- | | | -UT- | | | -UT- | | | -UT- | | |
| Roaming QBC information | | | | - | | | IUT- | | | - | | | IUT- | | |
| Multiple QFI container | | | | - | | | IUT- | | | - | | | IUT- | | |
| UPF ID | | | | - | | | IUT- | | | - | | | IUT- | | |
| Roaming Charging Profile | | | | - | | | IU-- | | | - | | | IU-- | | |

Table 6.2.2.2 defines the basic structure of the supported fields in the *Charging Data* Response message for 5G data connectivity converged charging or offline only charging.

Table 6.2.2.2: Supported fields in *Charging Data Response* message

| Information Element | | Functionality of SMF | FBC | | QBC | | FBC | | QBC | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Charging Service | Converged Charging | | Converged Charging | | Offline Only Charging | | Offline Only Charging | |
| Supported Operation Types | I/U/T/E | | I/U/T/E | | I/U/T/E | | I/U/T/E | |
| Session Identifier | | | I--- | | I--- | | I--- | | I--- | |
| Invocation Timestamp | | | IUT- | | IUT- | | IUT- | | IUT- | |
| Invocation Result | | | IUT- | | IUT- | | IUT- | | IUT- | |
| Invocation Sequence Number | | | IUT- | | IUT- | | IUT- | | IUT- | |
| Session Failover | | | IU-- | | IUT- | | IU-- | | IUT- | |
| Supported Features | | | IU-- | | IU-- | | - | | - | |
| Triggers | | | IU-- | | IU-- | | IU-- | | IU-- | |
| Multiple Unit information | | | IU-- | | - | | IU-- | | - | |
| Result Code | | | IU-- | | - | | IU-- | | - | |
| Rating Group | | | IU-- | | - | | IU-- | | - | |
| UPF ID | | | IU-- | | - | | IU-- | | - | |
| Granted Unit | | | IU-- | | - | | - | | - | |
| Validity Time | | | IU-- | | - | | - | | - | |
| Final Unit Indication | | | IU-- | | - | | - | | - | |
| Time Quota Threshold | | | IU-- | | - | | - | | - | |
| Volume Quota Threshold | | | IU-- | | - | | - | | - | |
| Unit Quota Threshold | | | IU-- | | - | | - | | - | |
| Quota Holding Time | | | IU-- | | - | | - | | - | |
| Triggers | | | IU-- | | - | | IU-- | | - | |
| PDU Session Charging Information | | | IU-- | | IU-- | | IU-- | | IU-- | |
| Charging Id | | | - | | - | | - | | - | |
| Home Provided Charging Id | | | - | | - | | - | | - | |
| User Information | | | - | | - | | - | | - | |
| User Location Info | | | - | | - | | - | | - | |
| MA PDU Non 3GPP User Location info | | | - | | - | | - | | - | |
| User Location Time | | | - | | - | | - | | - | |
| MA PDU Non 3GPP User Location Time | | | - | | - | | - | | - | |
| UE Time Zone | | | - | | - | | - | | - | |
| Presence Reporting Area Information | | | IU-- | | IU-- | | IU-- | | IU-- | |
| PDU Session Information | | | - | | - | | - | | - | |
| PDU Session ID | | | - | | - | | - | | - | |
| Network Slice Instance Identifier | | | - | | - | | - | | - | |
| PDU Type | | | - | | - | | - | | - | |
| PDU Address | | | - | | - | | - | | - | |
| SSC Mode | | | - | | - | | - | | - | |
| MA PDU session information | | | - | | - | | - | | - | |
| SUPI PLMN ID | | | - | | - | | - | | - | |
| Serving Network Function ID | | | - | | - | | - | | - | |
| Serving CN PLMN ID | | | - | | - | | - | | - | |
| RAT Type | | | - | | - | | - | | - | |
| MA PDU Non 3GPP RAT Type | | | - | | - | | - | | - | |
| Data Network Name Identifier | | | - | | - | | - | | - | |
| DNN Selection Mode | | | - | | - | | - | | - | |
| Authorized QoS Information | | | - | | - | | - | | - | |
| Subscribed QoS Information | | | - | | - | | - | | - | |
| Authorized Session-AMBR | | | - | | - | | - | | - | |
| Subscribed Session-AMBR | | | - | | - | | - | | - | |
| PDU session start Time | | | - | | - | | - | | - | |
| PDU session stop Time | | | - | | - | | - | | - | |
| Diagnostics | | | - | | - | | - | | - | |
| Enhanced Diagnostics | | | - | | - | | - | | - | |
| Charging Characteristics | | | - | | - | | - | | - | |
| Charging Characteristics Selection Mode | | | - | | - | | - | | - | |
| 3GPP PS Data Off Status | | | - | | - | | - | | - | |
| Session Stop Indicator | | | - | | - | | - | | - | |
| Redundant Transmission Type | | | - | | - | | - | | - | |
| PDU Session Pair ID | | | - | | - | | - | | - | |
| Unit Count Inactivity Timer | | | IU-- | | - | | - | | - | |
| RAN Secondary RAT Usage Report | | | - | | - | | - | | - | |
| Roaming QBC information | | | - | | IU-- | | - | | IU-- | |
| Multiple QFI container | | | - | | - | | - | | - | |
| UPF ID | | | - | | - | | - | | - | |
| Roaming Charging Profile | | | - | | IU-- | | - | | IU-- | |

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| **End of changes** |