**3GPP TSG-SA5 Meeting #130e *S5-202164rev***

**e-meeting, 20 April– 24 April 2020** Revision of S5-20xxxx

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v11.4* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **32.256** | **CR** | **0001** | **rev** | **1** | **Current version:** | **16.0.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Add the Retransmission Indicator | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5GS\_Ph1\_AMFCH | | | | |  | ***Date:*** | | | 2020-04-23 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-16 |
|  | *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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | To keep alignment with TS 32.290, the Retransmission Indicator in charging data request should be added. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add the Retransmission indicator. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Can not be aligned with other specifications. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.1.1.2,6.2.3 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

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

#### 6.1.1.2 Charging Data Request message

Table 6.1.1.2.1 illustrates the basic structure of a Charging Data Request message from the AMF as used for 5G connection and mobility converged charging.

Table 6.1.1.2.1: Charging Data Request message contents

| **Information Element** | **Category for converged charging** | **Description** |
| --- | --- | --- |
| Session Identifier | OC | Described in TS 32.290 [57] |
| Subscriber Identifier | OM | Described in TS 32.290 [57]  In case Subscriber Identifier (i.e. SUPI) is not present (for emergency service), the User Equipment Info in table 6.2.1.2.1. shall be present for identifying the user. |
| NF Consumer Identification | M | Described in TS 32.290 [57] |
| NF Functionality | M | Described in TS 32.290 [57] |
| NF Name | OC | Described in TS 32.290 [57] |
| NF Address | OC | Described in TS 32.290 [57] |
| NF PLMN ID | OC | Described in TS 32.290 [57] |
| Invocation Timestamp | M | Described in TS 32.290 [57] |
| Invocation Sequence Number | M | Described in TS 32.290 [57] |
| Retransmission Indicator | - | This field is not applicable. |
| One-time Event | OC | Described in TS 32.290 [57] |
| One-time Event Type | OC | Described in TS 32.290 [57] |
| Notify URI | - | This field is not applicable. |
| Triggers | OC | This field is described in TS 32.290 [57] and holds the 5G connection and mobility specific triggers described in clause 5.2.1. |
| Multiple Unit Usage | OC | Described in TS 32.290 [57]. |
| Rating Group | M | Described in TS 32.290 [57] |
| Requested Unit | OC | Described in TS 32.290 [57] |
| AMF Identifier | OC | This field holds the AMF identifier. |
| AMF Charging Profile | OC | This field holds the applicable AMF Charging Profile |
| Registration Charging Information | OM | This field holds the registration specific information described in clause 6.2.1.2 |
| N2 connection Charging Information | OM | This field holds the N2 connection specific information described in clause 6.2.1.3 |
| Location Reporting Charging information | OM | This field holds the Location Reporting specific information described in clause 6.2.1.4 |

|  |
| --- |
| **Next change** |

### 6.2.3 Detailed message format for converged charging

The following clause specifies per Operation Type the charging data that are sent by AMF for 5G connection and mobility converged charging.

The Operation Types are listed in the following order: I (Initial)/T (Termination)/E (Event). Therefore, when all Operation Types are possible it is marked as ITE. If only some Operation Types are allowed for a node, only the appropriate letters are used (i.e. IT or E) as indicated in the table heading. The omission of an Operation Type for a particular field is marked with "-" (i.e. I-E). Also, when an entire field is not allowed in a node the entire cell is marked as "-".

Table 6.2.3.1 defines the basic structure of the supported fields in the *Charging Data Request* message for AMF converged charging.

Table 6.2.3.1: Supported fields in Charging Data Request message

| Information Element | Functionality of AMF | Reg. | N2 cnt | Loc. Report. |
| --- | --- | --- | --- | --- |
| Supported Operation Types | I/T/E | E | E |
| Session Identifier | | ITE | E | E |
| Subscriber Identifier | | ITE | E | E |
| NF Consumer Identification | | ITE | E | E |
| Invocation Timestamp | | ITE | E | E |
| Invocation Sequence Number | | ITE | E | E |
| Retransmission Indicator | | - | - | - |
| One-time Event | | --E | E | E |
| One-time Event Type | | --E | E | E |
| Notify URI | | - | - | - |
| Triggers | | ITE | - | - |
| Multiple Unit Usage | | ITE | - | - |
| AMF Identifier | | ITE | E | E |
| AMF Charging Profile | | I-E | E | E |
| Registration Charging Information | | | | |
| Registration Message type | | ITE | - | - |
| User Information | | ITE | - | - |
| UE MM Core Network Capability | | ITE | - | - |
| MICO Mode Indication | | ITE | - | - |
| SMS Supported Indication | | ITE | - | - |
| Access Type | | ITE | - | - |
| RAT Type | | ITE | - | - |
| TAI List | | ITE | - | - |
| User Location Info | | ITE | - | - |
| User Location Time | | ITE | - | - |
| PSCell Information | | ITE | - | - |
| UE Time Zone | | ITE | - | - |
| Mobility Restrictions | | ITE | - | - |
| Requested NSSAI | | ITE | - | - |
| Allowed NSSAI | | ITE | - | - |
| Rejected NSSAI | | ITE | - | - |
| NSSAI mapping list | | ITE | - | - |
| AMF UE NGAP ID | | ITE | - | - |
| RAN UE NGAP ID | | ITE | - | - |
| RAN Node Id | | ITE | - | - |
| N2 Connection Charging Information | | | | |
| N2 Connection Message type | | - | E | - |
| User Information | | - | E | - |
| User Location Info | | - | E | - |
| User Location Time | | - | E | - |
| PSCell Information | | - | E | - |
| UE Time Zone | | - | E | - |
| RAT Type | | - | E | - |
| AMF UE NGAP ID | | - | E | - |
| RAN UE NGAP ID | | - | E | - |
| RAN Node Id | | - | E | - |
| Mobility Restrictions | | - | E | - |
| Allowed NSSAI | | - | E | - |
| RRC Establishment Cause | | - | E | - |
| Location Reporting Charging information | | | | |
| Location reporting Message type | | - | - | E |
| User Information | | - | - | E |
| User Location Info | | - | - | E |
| User Location Time | | - | - | E |
| PSCell Information | | - | - | E |
| UE Time Zone | | - | - | E |
| Presence Reporting Area Information | | - | - | E |
| RAT Type | | - | - | E |

Table 6.2.3.2 defines the basic structure of the supported fields in the *Charging Data Response* message for AMF converged charging.

Table 6.2.3.2: Supported fields in Charging Data Response message

| Information Element | Functionality of AMF | Reg. | N2 cnt | Loc. Report. |
| --- | --- | --- | --- | --- |
| Supported Operation Types | ITE | E | E |
| Session Identifier | | ITE | E | E |
| Invocation Timestamp | | ITE | E | E |
| Invocation Result | | ITE | E | E |
| Invocation Sequence Number | | ITE | E | E |
| Session Failover | | I-- | - | - |
| Triggers | | - | E | E |
| Multiple Unit information | | - | - | - |
| AMF Charging Profile | | I-E | E | E |

|  |
| --- |
| **End of change** |