**3GPP TSG-SA5 Meeting #154 *S5-241861***

**Changsha, CHINA, 15 Apr - 19 Apr 2024**  Revision of S5-241628

|  |
| --- |
| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **32.254** | **CR** | **0048** | **rev** | **1** | **Current version:** | **18.2.0** |  |
|  |
| *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)*.* |
|  |

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

|  |
| --- |
|  |
| ***Title:***  | Rel-18 CR 32.254 Correction on trigger for NEF message content |
|  |  |
| ***Source to WG:*** | Huawei |
| ***Source to TSG:*** | S5 |
|  |  |
| ***Work item code:*** | TEI18 |  | ***Date:*** | 2024-04-17 |
|  |  |  |  |  |
| ***Category:*** | F |  | ***Release:*** | Rel-18 |
|  | *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:*** | Based on the conclusion of triggers mechanism (S5-237838 and S5-241623), the triggers for IEC, PEC and ECUR which can be linked and stated in the service special charging information are not required to be reported to CHF. For the IEC and PEC, the Session Identifier is not applicable in the Charging Data Request, but can be included in the Charging Data Response. For the ECUR, the Session Identifier is not applicable in the Charging Data Request [Initial], but can be included in the Charging Data Response and Charging Data Request [Termination]. |
|  |  |
| ***Summary of change:*** | Clarify the triggers in the NEF message content. |
|  |  |
| ***Consequences if not approved:*** | The triggers for NEF charging is unclear. |
|  |  |
| ***Clauses affected:*** | 6.2a.1.2.1, 6.2a.1.2.2,6.2a.3.2,6.3.4 |
|  |  |
|  | **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** |

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

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

Table 6.2a.1.2.1.1: Charging Data Request message contents

|  |  |  |
| --- | --- | --- |
| **Information Element** | **Category** | **Description** |
| Session Identifier | OC | Described in TS 32.290 [57] |
| Subscriber Identifier | OM | Described in TS 32.290 [57], and holds the identifier of the AF |
| NF Consumer Identification | M | Described in TS 32.290 [57] |
| Charging Identifier | OM | 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] |
|  |  |  |
| One-time Event | OC | Described in TS 32.290 [57]. |
| One-time Event Type | OC | Described in TS 32.290 [57]. |
|  |  |  |
| Supported Features | OC | Described in TS 32.290 [57] |
|  |  |  |
| 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 [57] |
| Requested Unit | OC | Described in TS 32.290 [57] |
| Used Unit Container | OC | Described in TS 32.290 [57] |
| NEF API Charging Information | OM | This field holds the NEF API specific information described in clause 6.3.1.4 |

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

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

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

Table 6.2a.1.2.2.1: Charging Data Response message content

|  |  |  |
| --- | --- | --- |
| **Information Element** | **Category** | **Description** |
| Session Identifier | OC | Described in TS 32.290 [57] |
| Invocation Timestamp | M | Described in TS 32.290 [57] |
| Invocation Result | OC | Described in TS 32.290 [57] |
| Invocation Sequence Number | M | Described in TS 32.290 [57] |
| Session Failover | OC | Described in TS 32.290 [57] |
| Supported Features | OC | Described in TS 32.290 [57] |
|  |  |  |
| Multiple Unit Information | OC | This field holds the parameters for the quota management information. |
| Result Code | OC | Described in TS 32.290 [57] |
| Rating Group | OM | Described in TS 32.290 [57] |
| Granted Unit | OC | Described in TS 32.290 [57] |
| Validity Time | OC | Described in TS 32.290 [57] |

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

#### 6.2a.3.2 NEF charging CHF CDR data

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

The fields of NEF charging CHF CDR are specified in table 6.2a.3.2.1.

Table 6.2a.3.2.1: NEF charging CHF record data

|  |  |  |
| --- | --- | --- |
| **Field** | **Category** | **Description** |
| Record Type  | M | Described in TS 32.298 [3] |
| Recording Network Function ID | OM | Described in TS 32.298 [3] |
| Subscriber Identifier | M | This field contains the identification of the API user (e.g. SCS Identifier) |
| NF Consumer Information | OC | This field holds the information of the NEF that used the charging service |
|  |  |  |
| List of Multiple Unit Usage | OM | Described in TS 32.298 [3] |
| Record Opening Time | OC | Described in TS 32.298 [3] |
| Duration | M | Described in TS 32.298 [3] |
| Record Sequence Number | OC | Described in TS 32.298 [3] |
| Cause for Record Closing  | M | Described in TS 32.298 [3] |
| Local Record Sequence Number | OM | Described in TS 32.298 [3] |
| Record Extensions | OC | Described in TS 32.298 [3] |
| NEF API Charging Information | OM | This field holds the NEF specific information defined in clause 6.3.1.4 |

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

### 6.3.4 Detailed message format for 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 6.3.4.1 illustrates the basic structure of the supported fields in the Charging Data Request for exposure function API online charging.

Table 6.3.4.1: Supported fields in Charging Data Request message

| Information Element | Node Type | NEF |
| --- | --- | --- |
| Supported Operation Types | IUTE |
| Session Identifier | I-TE |
| Subscriber Identifier | I-TE |
| NF Consumer Identification | I-TE |
| Charging Identifier | I-TE |
| Invocation Timestamp | I-TE |
| Invocation Sequence Number | I-TE |
|  |  |
| One-time Event | ---E |
| One-time Event Type | ---E |
| Notify URI |  I--- |
| Supported Features | I--E |
| Triggers | I-TE |
| Multiple Unit Usage | I-TE |
| Rating Group | I--E |
| Requested Unit | I--E |
| Used Unit Container | --TE |
| NEF API Charging Information |
| External Individual Identifier | I-TE |
| External Individual Id List | ITE |
| Internal Individual Identifier | ITE |
| Internal Individual Id List | ITE |
| External Group Identifier | I-TE |
| Internal Group Identifier | I-TE |
| API Direction | I-TE |
| API Target Network Function | I-TE |
| API Result Code | I-TE |
| API Name | I-TE |
| API Operation | ITE |
| API Reference | I-TE |
| API Content | I-TE |

Table 6.3.4.2 illustrates the basic structure of the supported fields in the Charging Data Response for exposure function API converged charging.

Table 6.3.4.2: Supported fields in *Charging Data Response* Message

| Information Element | Node Type | NEF |
| --- | --- | --- |
| Supported Operation Types | IUTE |
| Session Identifier | I-TE |
| Invocation Timestamp | I-TE |
| Invocation Result | I-TE |
| Invocation Sequence Number | I-TE |
| Session Failover | I-TE |
| Supported Features | I--E |
|  |  |
| Multiple Unit Information | I--E |
| Result Code | I-E |
| Rating Group | I-E |
| Granted Unit | I-E |
| Validity Time | I-E |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

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