**3GPP TSG-SA5 Meeting #154 *S5-241860***

**Changsha, CHINA, 15 Apr - 19 Apr 2024**  Revision of S5-241625

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **28.202** | **CR** | **0005** | **rev** | **1** | **Current version:** | **18.0.0** |  |
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| *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** |

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| ***Title:***  | Rel-18 CR 28.202 Clarification on triggers for NSM 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)* |
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| ***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].TR 28.286 concluded on Solution #6.10: Only Applicable Common IEs should be reflected in common part description compared to TS 32.290. |
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| ***Summary of change:*** | Clarify the triggers in the NSM message content.Correct the Session Identifier in the NSM message content.Remove not applicable IEs and Expand the sub-fields in the message content. |
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| ***Consequences if not approved:*** | The triggers for NSM charging is unclear. |
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| ***Clauses affected:*** | 6.1.1.2,6.1.1.3,6.1.3.2,6.2.3(New) |
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|  | **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 ... |
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| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

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| **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 CEF or MnS producer as used for Network slice management charging.

Table 6.1.1.2.1: Charging Data Request message contents

| **Information Element** | **Category for converged charging** | **Description** |
| --- | --- | --- |
|  |  |  |
|  |  |  |
| Tenant Identifier | OM | This fields holds the identifier of the tenant the network slice instance is created for. |
| MnS Consumer Identifier | OM | This fields holds the identifier of the MnS Consumer of Provisioning MnS. |
| NF Consumer Identification | M | Described in TS 32.290 [57] and holds the identifier of the CEF or MnS producer. |
| 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] |
|  |  |  |
| Service Specification Information | OC | Described in TS 32.290 [57] |
|  |  |  |
|  |  |  |
| NSM Charging information | OM | This field holds NSM specific information described in clause 6.2.1.2 |

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| **Next change** |

#### 6.1.1.3 Charging data response message

Table 6.1.1.3.1 illustrates the basic structure of a Charging Data Response message from the CHF to the MnS producer or CEF as used for Network slice management charging.

Table 6.1.1.3.1: Charging Data Response message contents

| **Information Element** | **Category for converged charging** | **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] |
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| **Next change** |

#### 6.1.3.2 Network Slice Management charging CHF CDR data

If enabled, CHF CDRs for Network Slice Management charging shall be produced for each Network Slice Management operations.

The fields of Network Slice Management charging CHF CDR are specified in table 6.1.3.2.1.

Table 6.1.3.2.1: Network Slice Management charging CHF record data

| Field | Category | Description |
| --- | --- | --- |
| Record Type  | M | CHF record. |
| Recording Network Function ID | OM | This field holds the name of the recording entity, i.e. the CHF id. |
|  |  |  |
| Tenant Identifier | OM | This field holds the identifier of the tenant the network slice instance is created for.  |
| MnS Consumer Identifier | OM | This fields holds the identifier of the MnS Consumer of Provisioning MnS. |
| NF Consumer Information | M | This field holds the information of the entity that used the charging service (i.e. Service Producer (CTF), CEF). |
| NF Functionality | M | This field contains the function of the entity: Service Producer (CTF) or CEF.  |
| NF Name | OC | This field holds the name of the entity. |
| NF Address | OC | This field holds the IP Address of the entity. |
| NF PLMN ID | Oc | This field holds the PLMN identifier (MCC MNC) of the entity. |
| Record Opening Time | M | Described in TS 32.298 [57] |
| Duration | M | Described in TS 32.298 [57] |
| Record Sequence Number | C | Described in TS 32.298 [57] |
| Cause for Record Closing  | M | Described in TS 32.298 [57] |
| Diagnostics | OM | Described in TS 32.298 [57] |
| Local Record Sequence Number | OM | Described in TS 32.298 [57] |
| Record Extensions | OC | Described in TS 32.298 [57] |
| NSM Charging information | OM | This field holds the Network Slice Management Charging information defined in clause 6.2.1.2. |

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| **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 CTF/CEF for network slice management 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 CTF/CEF converged charging.

Table 6.2.3-1: Supported fields in *Charging Data Request* message

| Information Element | Network Slice Management | CTF | CEF |
| --- | --- | --- | --- |
| Supported Operation Types | E | E |
|  |  |  |
|  |  |  |
| Tenant Identifier | E | E |
| MnS Consumer Identifier | E | E |
| NF Consumer Identification | E | E |
| Invocation Timestamp | E | E |
| Invocation Sequence Number | E | E |
| One-time Event | E | E |
| One-time Event Type | E | E |
|  |  |  |
| Service Specification Information | E | E |
|  |  |  |
|  |  |  |
| NSM Charging Information | E | E |

Table 6.2.3-2 defines the basic structure of the supported fields in the *Charging Data Response* message for CTF/CEF converged charging.

Table 6.2.3-2: Supported fields in *Charging Data Response* message

| Information Element | **Network Slice Management** | CTF | CEF |
| --- | --- | --- | --- |
| Supported Operation Types | E | E |
| Session Identifier | E | E |
| Invocation Timestamp | E | E |
| Invocation Result | E | E |
| Invocation Sequence Number | E | E |
|  |  |  |
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| **End of change** |