**3GPP TSG-SA5 Meeting #142eS5-222233**

**4 - 12 April 2022, E-meeting**

**Source: Huawei**

**Title: pCR 32.257 Correction on the charging information description**

**Document for: Approval**

**Agenda Item: 7.4.1**

# 1 Decision/action requested

***The group is asked to discuss and agree on the proposal.***

# 2 References

[1] 3GPP TS 32.257-100 “Edge Computing domain charging; stage 2”

# 3 Rationale

Keep alignment with other middle-tier TSs, if the field is not applicable for the EC charging, the corresponding description for the fileld should be “This field is not applicable”.

This pCR is to correct the description for the fields which is not applicable for EC in the TS 32.257.

# 4 Detailed proposal

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| **First change** |

##### 6.1.1.1.2 Charging Data Request message

Table 6.1.1.1.2-1 illustrates the basic structure of a Charging Data Request message from the CEF as used for edge enabling infrastructure resource usage converged charging.

Table 6.1.1.1.2-1: Charging Data Request message contents

| **Information Element** | **Converged Charging****Category** | **Description** |
| --- | --- | --- |
| Session Identifier | - | This field is not applicable. |
| Subscriber Identifier | - | This field is not applicable. |
| NF Consumer Identification | M | Described in TS 32.290 [6]. |
| NF Functionality | M | Described in TS 32.290 [6]. |
| NF Name | OC | Described in TS 32.290 [6]. |
| NF Address | OC | Described in TS 32.290 [6]. |
| NF PLMN ID | OC | Described in TS 32.290 [6]. |
| Charging Identifier | OM | Described in TS 32.290 [6]. |
| Invocation Timestamp | M | Described in TS 32.290 [6]. |
| Invocation Sequence Number | - | This field is not applicable. |
| Retransmission Indicator | OC | Described in TS 32.290 [6]. |
| One-time Event | OC | Described in TS 32.290 [6]. |
| One-time Event Type | OC | Described in TS 32.290 [6]. |
| Notify URI | - | This field is not applicable. |
| Supported Features | OC | Described in TS 32.290 [6]. |
| Service Specification Information | OC | Described in TS 32.290 [6]. |
| Triggers | OC | Described in TS 32.290 [6]. |
| Multiple Unit Usage  | OM | Described in TS 32.290 [6]. |
| Rating Group | OM | Described in TS 32.290 [6]. |
| Requested Unit | - | This field is not applicable. |
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| Used Unit Container | OM | Described in TS 32.290 [6]. |
| Service Identifier | OM | Described in TS 32.290 [6]. |
| Quota management Indicator | - | This field is not applicable. |
| Triggers | OM | Described in TS 32.290 [6]. |
| Trigger Timestamp | OM | Described in TS 32.290 [6]. |
| Time | OM | Described in TS 32.290 [6]. |
| Total Volume | - | Described in TS 32.290 [6]. |
| Uplink Volume | OM | This field holds the information of incoming data volume for the EAS, see DataVolum.InBytesEAS in clause 5.7.2.1 of TS 28.552 [13]. |
| Downlink Volume | OM | This field holds the information of outgoing data volume for the EAS, see DataVolum.OutBytesEAS in clause 5.7.2.2 of TS 28.552 [13]. |
| Service Specific Unit | - | This field is not applicable. |
| Event Time Stamps | - | This field is not applicable. |
| Local Sequence Number  | - | This field is not applicable. |
| EAS ID | OM | This field holds the EAS ID, see TS 23.558 [9]. |
| EDN ID | OM | This field holds the DN of EdgeDataNetwork MOI, see TS 28.538 [12]. |
| EAS Provider Identifier | OM | The identifier of the ASP that provides the EAS, see TS 23.558 [9]. |
| Edge Enabling Infrastructure Resource Usage Charging Information | OM | This field holds the for edge enabling infrastructure resource usage charging specific information described in clause 6.1.2.1.2. |

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| **Next change** |

##### 6.1.1.1.3 Charging data response message

Table 6.1.1.1.3-1 illustrates the basic structure of a Charging Data Response message from the CHF as used for edge enabling infrastructure resource usage converged charging.

Table 6.1.1.1.3-1: Charging Data Response message contents

| **Information Element** | **Converged Charging****Category** | **Description** |
| --- | --- | --- |
| Session Identifier | - | Described in TS 32.290 [6]. |
| Invocation Timestamp | M | Described in TS 32.290 [6]. |
| Invocation Result | OC | Described in TS 32.290 [6]. |
| Invocation Result Code | OC | Described in TS 32.290 [6]. |
| Failed parameter | OC | Described in TS 32.290 [6]. |
| Failure Handling | OC | Described in TS 32.290 [6]. |
| Invocation Sequence Number | - | This field is not applicable. |
| Session Failover | - | This field is not applicable. |
| Supported Features | OC | Described in TS 32.290 [6]. |
| Triggers  | - | This field is not applicable. |
| Multiple Unit Information | OC | Described in TS 32.290 [6]. |
| Result Code | OC | Described in TS 32.290 [6]. |
| Rating Group | - | This field is not applicable. |
| Granted Unit | - | This field is not applicable. |
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| Validity Time | - | This field is not applicable.. |
| Final Unit Indication | - | This field is not applicable. |
| Time Quota Threshold  | - | This field is not applicable. |
| Volume Quota Threshold  | - | This field is not applicable. |
| Unit Quota Threshold  | - | This field is not applicable. |
| Quota Holding Time | - | This field is not applicable. |
| Triggers | - | This field is not applicable. |

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| **Next change** |

##### 6.1.1.3.2 Edge enabling infrastructure resource usage charging CHF CDR data

If enabled, CHF CDRs for edge enabling infrastructure resource usage charging shall be produced for each performance measurement report.

The fields of enabling infrastructure resource usage charging CHF CDR are specified in table 6.1.1.3.2-1.

Table 6.1.1.3.2-1: Edge enabling infrastructure resource usage charging CHF record data

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| --- | --- | --- |
| Field | Category | Description |
| Record Type  | M | Described in TS 32.298 [3] |
| Recording Network Function ID | OM | Described in TS 32.298 [3] |
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| Tenant Identifier | OM | Described in TS 32.298 [3] |
| MnS Consumer Identifier | OC | Described in TS 32.298 [3] |
| NF Consumer Information | M | This field holds the information of the CEF that used the charging service. |
| NF Functionality | M | This field contains the function of the node (i.e. CEF) |
| NF Name | OC | This field holds the name of the CEF used. |
| NF Address | OC | This fields holds the IP Address of the CEF used. |
| NF PLMN ID | OC | This field holds the PLMN identifier (MCC MNC) of the CEF. |
| Charging Identifier | OM | Described in TS 32.298 [3] |
| Triggers | OM | Described in TS 32.298 [3] |
|  |  |  |
| List of Multiple Unit Usage | OM | This field holds a list of changes in charging conditions for the edge enabling infrastructure resource usage. |
| Rating Group | OM | Described in TS 32.298 [3] |
| Used Unit Container | OM | Described in TS 32.298 [3] |
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| Time | OM | This field holds the amount of used time. |
| Uplink Volume  | OM | This field holds the information of incoming data volume for the EAS, see DataVolum.InBytesEAS in clause 5.7.2.1 of TS 28.552 [13]. |
| Downlink Volume  | OM | This field holds the information of outgoing data volume for the EAS, see DataVolum.OutBytesEAS in clause 5.7.2.2 of TS 28.552 [13]. |
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| Duration | M | Described in TS 32.298 [3] |
| Record Sequence Number | C | 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] |
| Service Specification Information | OC | Described in TS 32.298 [3] |
| EAS ID | OM | This field holds the EAS ID, see TS 23.558 [9]. |
| EDN ID | OM | This field holds the DN of EdgeDataNetwork MOI, see TS 28.538 [12]. |
| EAS Provider Identifier | OM | The identifier of the ASP that provides the EAS, see TS 23.558 [9]. |
| Edge Enabling Infrastructure Resource Usage Charging Information | OM | This field holds the for edge enabling infrastructure resource usage charging specific information described in clause 6.1.2.1.2. |

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| **Next change** |

##### 6.2.1.1.2 Charging Data Request message

Table 6.2.1.1.2-1 illustrates the basic structure of a Charging Data Request message from the CEF as used for EAS deployment converged charging.

Table 6.2.1.1.2-1: Charging Data Request message contents

| **Information Element** | **Converged Charging****Category** | **Description** |
| --- | --- | --- |
| Session Identifier | - | This field is not applicable. |
| Subscriber Identifier | - | This field is not applicable. |
| NF Consumer Identification | M | Described in TS 32.290 [6]. |
| NF Functionality | M | Described in TS 32.290 [6]. |
| NF Name | OC | Described in TS 32.290 [6]. |
| NF Address | OC | Described in TS 32.290 [6]. |
| NF PLMN ID | OC | Described in TS 32.290 [6]. |
| Charging Identifier | OM | Described in TS 32.290 [6]. |
| Invocation Timestamp | M | Described in TS 32.290 [6]. |
| Invocation Sequence Number | - | This field is not applicable. |
| Retransmission Indicator | OC | Described in TS 32.290 [6]. |
| One-time Event | OC | Described in TS 32.290 [6]. |
| One-time Event Type | OC | Described in TS 32.290 [6]. |
| Notify URI | - | This field is not applicable. |
| Supported Features | OC | Described in TS 32.290 [6]. |
| Service Specification Information | OC | Described in TS 32.290 [6]. |
| Triggers | OC | Described in TS 32.290 [6]. |
| Multiple Unit Usage  | OM | Described in TS 32.290 [6]. |
| Rating Group | OM | Described in TS 32.290 [6]. |
| Requested Unit | - | This field is not applicable. |
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| Used Unit Container | - | This field is not applicable. |
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| EAS ID | OM | This field holds the EAS ID, see TS 23.558 [9]. |
| EDN ID | OM | This field holds the DN of EdgeDataNetwork MOI, see TS 28.538 [12]. |
| EAS Provider Identifier | OM | The identifier of the ASP that provides the EAS, see TS 23.558 [9]. |
| EAS Deployment Charging Information | OM | This field holds the for EAS deployment charging specific information described in clause 6.2.2.1.2. |

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| **Next change** |

##### 6.2.1.1.3 Charging data response message

Table 6.2.1.1.3-1 illustrates the basic structure of a Charging Data Response message from the CHF as used for EAS deployment converged charging.

Table 6.2.1.1.3-1: Charging Data Response message contents

| **Information Element** | **Converged Charging****Category** | **Description** |
| --- | --- | --- |
| Session Identifier | M | Described in TS 32.290 [6]. |
| Invocation Timestamp | M | Described in TS 32.290 [6]. |
| Invocation Result | OC | Described in TS 32.290 [6]. |
| Invocation Result Code | OC | Described in TS 32.290 [6]. |
| Failed parameter | OC | Described in TS 32.290 [6]. |
| Failure Handling | OC | Described in TS 32.290 [6]. |
| Invocation Sequence Number | - | This field is not applicable. |
| Session Failover | - | This field is not applicable. |
| Supported Features | OC | Described in TS 32.290 [6]. |
| Triggers  | - | This field is not applicable. |
| Multiple Unit Information | OC | Described in TS 32.290 [6]. |
| Result Code | OC | Described in TS 32.290 [6]. |
| Rating Group | - | This field is not applicable. |
| Granted Unit | - | This field is not applicable. |
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| Validity Time | - | This field is not applicable. |
| Final Unit Indication | - | This field is not applicable. |
| Time Quota Threshold  | - | This field is not applicable. |
| Volume Quota Threshold  | - | This field is not applicable. |
| Unit Quota Threshold  | - | This field is not applicable. |
| Quota Holding Time | - | This field is not applicable. |
| Triggers | - | This field is not applicable. |

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| **Next change** |

##### 6.2.1.3.2 EAS deployment charging CHF CDR data

If enabled, CHF CDRs for EAS deployment charging shall be produced for each EAS LCM notification (i.e., notifyMOICreation, notifyMOIAttributeValueChanges, or notifyMOIDeletion).

The fields of EAS deployment charging CHF CDR are specified in table 6.2.1.3.2-1.

Table 6.2.1.3.2-1: EAS deployment 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] |
|  |  |  |
|  |  |  |
| Tenant Identifier | OM | Described in TS 32.298 [3] |
| MnS Consumer Identifier | OC | Described in TS 32.298 [3] |
| NF Consumer Information | M | This field holds the information of the CEF that used the charging service. |
| NF Functionality | M | This field contains the function of the node (i.e. CEF) |
| NF Name | OC | This field holds the name of the CEF used. |
| NF Address | OC | This fields holds the IP Address of the CEF used. |
| NF PLMN ID | OC | This field holds the PLMN identifier (MCC MNC) of the CEF. |
| Charging Identifier | OM | Described in TS 32.298 [3] |
| Triggers | OM | Described in TS 32.298 [3] |
|  |  |  |
| List of Multiple Unit Usage | OM | Described in TS 32.298 [3] |
| Rating Group | OM | Described in TS 32.298 [3] |
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| Duration | M | Described in TS 32.298 [3] |
| Record Sequence Number | C | 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] |
| Service Specification Information | OC | Described in TS 32.298 [3] |
| EAS ID | OM | This field holds the EAS ID, see TS 23.558 [9]. |
| EDN ID | OM | This field holds the DN of EdgeDataNetwork MOI, see TS 28.538 [12]. |
| EAS Provider Identifier | OM | The identifier of the ASP that provides the EAS, see TS 23.558 [9]. |
| EAS Deployment Charging Information | OM | This field holds the EAS deployment charging specific information defined in clause 6.2.2.1.2. |

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| **End of change** |