**3GPP TSG-SA5 Meeting #156 *S5-244544***

**Maastricht, Netherlands, 19 - 23 August 2024**

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| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
|  |
|  | **32.291** | **CR** | **0574** | **rev** | **1** | **Current version:** | **16.16.0** |  |
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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-16 CR 32.291 Correction of SMSChargingInformation |
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| ***Source to WG:*** | Ericsson LM |
| ***Source to TSG:*** | SA5 |
|  |  |
| ***Work item code:*** | TEI16, 5GS\_Ph1-SMSCH |  | ***Date:*** | 2024-08-22 |
|  |  |  |  |  |
| ***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-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19) Rel-20 (Release 20)* |
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| ***Reason for change:*** | The referenced to TS 23.040 in table 6.1.6.2.2.3-2 is missing in the references for sMUserDataHeader and is should be stated that it excludes any padding or filler. The sMDataCodingScheme is missing a refence. Both should have the clause as well included in the reference. |
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| ***Summary of change:*** | Adding reference to TS 23.040 for sMDataCodingScheme, sMUserDataHeader, and sMStatus.Updating pattern for sMUserDataHeader and sMStatus. |
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| ***Consequences if not approved:*** | Undefined representation of attributes may lead till interoperability issues. |
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| ***Clauses affected:*** | 2, and 6.1.2.3.2 |
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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:*** | Revision of S5-244140 |

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| **First change** |

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TS 32.240: "Telecommunication management; Charging management; Charging architecture and principles".

[2] - [13] Void.

[14] 3GPP TS 32.254: "Telecommunication management; Charging management; Exposure function Northbound Application Program Interfaces (APIs) charging ".

[15] - [28] Void.

[29] 3GPP TS 32.274: "Telecommunication management; Charging management;Short Message Service (SMS) charging".

[30] 3GPP TS 32.255: "Telecommunication management; Charging management; 5G Data connectivity domain charging; stage 2".

[31] 3GPP TS 32.256: "Telecommunication management; Charging management; 5G connection and mobility domain charging; stage 2".

[32] - [49] Void.

[50] - [57] Void.

[58] 3GPP TS 32.290: "Telecommunication management; Charging management; 5G system; Services, operations and procedures of charging using Service Based Interface (SBI).

[59] - [69] Void.[70] 3GPP TS 28.201: "Charging management; Network slice performance and analytics charging in the 5G System (5GS); Stage 2".

[71] 3GPP TS 28.202: "Charging management; Network slice management charging in the 5G System (5GS); Stage 2".

[72] - [99] Void.

[100] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[101] 3GPP TR 21.900: "Technical Specification Group working methods".

[102] Void

[103] 3GPP TS 23.040: "Technical realization of the Short Message Service (SMS) "

[104] - [199] Void

[200] - [252] Void

[253] 3GPP TS 28.532: "Management and orchestration; Management services".

[254] 3GPP TS 28.541: "Management and orchestration; 5G Network Resource Model (NRM); Stage 2 and stage 3".

[255] 3GPP TS 32.300: "Telecommunication management; Configuration Management (CM); Name convention for Managed Objects".

[256] 3GPP TS 28.554: "Management and orchestration;5G end to end Key Performance Indicators (KPI)".

[257] 3GPP TS 28.623: "Telecommunication management; Generic Network Resource Model (NRM) Integration Reference Point (IRP); Solution Set (SS) definitions".

[258] - [298] Void

[299] 3GPP TS 29.500: "5G System; Technical Realization of Service Based Architecture; Stage 3".

[300] 3GPP TS 29.501: "5G System; Principles and Guidelines for Services Definition; Stage 3".

[301] 3GPP TS 29.594: "5G System; Spending Limit Control Service; Stage 3".

[302] 3GPP TS 29.512: "5G System; Session Management Policy Control Service; Stage 3".

[303] 3GPP TS 24.501: "Non-Access-Stratum (NAS) Protocol for 5G System (5GS); Stage 3".

[304] 3GPP TS 38.413: "NG-RAN; NG Application Protocol (NGAP)".

[305] 3GPP TS 29.510: "Network Function Repository Services; Stage 3".

[306] 3GPP TS 29.520: "5G System; Network Data Analytics Services;Stage 3".

[307] - [370] Void

[371] 3GPP TS 29.571: "5G System; Common Data Types for Service Based Interfaces; Stage 3".

[372] - [389] Void

[390] 3GPP TS 33.501: "Security architecture and procedures for 5G System".

[391] - [399] Void

[400] Void.

[401] IETF RFC 7540: "Hypertext Transfer Protocol Version 2 (HTTP/2) ".

[402] IETF RFC 8259: "The JavaScript Object Notation (JSON) Data Interchange Format ".

[403] IETF RFC 6749: "The OAuth 2.0 Authorization Framework".

[404] - [499] Void.

[500] OpenAPI: "OpenAPI 3.0.0 Specification", <https://github.com/OAI/OpenAPI-Specification/blob/master/versions/3.0.0.md>.

[501] - [599] Void.

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| **Second change** |

6.1.6.2.3.2 Type SMSChargingInformation

**Table  6.1.6.2.2.3-2: Definition of type SMSChargingInformation**

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| --- | --- | --- | --- | --- | --- |
| **Attribute name** | **Data type** | **P** | **Cardinality** | **Description** | **Applicability** |
| originatorInfo | OriginatorInfo | OM | 0..1 | originator of the SM |  |
| recipientInfo  | Array(RecipientInfo) | OC | 0..N | recipient information for the SM |  |
| userEquipment Info  | Pei  | OC | 0..1 | the identification of the terminal |  |
| roamerInOut | RoamerInOut | OC | 0..1 | In-bound or Out-bound roamer |  |
| userLocationInfo | UserLocation | OC | 0..1 | provides information on the location |  |
| uetimeZone | TimeZone | OC | 0..1 | the UE Time Zone the UE is currently located |  |
| rATType | RatType | OC | 0..1 | The identification of the RAT type. |  |
| sMSCAddress | string | OM | 0..1 | the address (e.g. E.164) of the SMS-service centre sending the Charging Data Request used for producing the record. (SMSC Address) |  |
| sMDataCodingScheme | integer | OM | 0..1 | the information from the TP-Data-Coding-Scheme (TP DCS) field in the TPDU specified in TS 23.040 [103] clause 9.2.3.10. |  |
| sMMessageType  | SMmessageType | OM | 0..1 | identifies the message that triggered the generation of charging information.  |  |
| sMReplyPathRequested | ReplyPathRequested | OC | 0..1 | an indication of whether a reply SM to an original SM was requested to follow the same path as identified by the TP-Reply-Path (TP-RP) flag. |  |
| sMUserDataHeader | string | OC | 0..1 | the user data header (TP-UDH) extracted from the TP-User-Data (TP-UD) specified in TS 23.040 [103] clause 9.2.3.24, excluding any padding and filler.' |  |
| sMStatus | string | OC | 0..1 | the information from the TP-Status (TP-ST) field in the TPDU specified in TS 23.040 [103] clause 9.2.3.15.It carries the value in hexadecimal representation.Pattern: '^[0-7]?[0-9a-fA-F] $' |  |
| sMDischargeTime | DateTime | OC | 0..1 | the time associated with the event being reported in the SM Status field. This information is only applicable to delivery report charging procedures. |  |
| numberofMessagesSent | Uint32 | OC | 0..1 | the number of SMSs sent by the IMS application or the total number of short messages when this SM is part of concatenated short message, if applicable. |  |
| sMServiceType | SMServiceType | OC | 0..1 | the type of SM service that caused the charging interaction. It is only applicable for SM supplementary service procedures. |  |
| sMSequenceNumber | Uint32 | OC | 0..1 | the sequence number of this SM within the concatenated short message |  |
| sMSresult | Uint32 | C | 0..1 | the result of the attempted SM transaction, if unsuccessful.This field is only for offline charging. |  |
| submissionTime | DateTime | OC | 0..1 | the timestamp of when the submitted SM arrived at the originating SMS Node |  |
| sMpriority | SMPriority | OC | 0..1 | any priority information associated with an SM |  |
| messageReference | string | OM | 0..1 | the identity used to identify an SM in the SMS node associated with entity that submitted it |  |
| messageSize | Uint32 | OM | 0..1 | the total number of short messages when this SM is part of concatenated short message |  |
| messageClass | MessageClass | OM | 0..1 | implementation dependent the value selected for a specific transaction. |  |
| deliveryReportRequested | DeliveryReportRequested | OC | 0..1 | indicates whether a delivery report is requested by the SM originator |  |

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| **End of changes** |