**3GPP TSG-SA5 Meeting #162 *S5-253761***

Goteborg, Sweden, 25 - 29 August 2025

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **32.260** | **CR** | **0447** | **rev** | 1 | **Current version:** | **19.0.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** | Rel-19 CR TS 32.260 IMS Call Charging Optimization | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | CSCN | | | | | | | | | |
| ***Source to TSG:*** | SA5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI19 | | | | |  | ***Date:*** | | | 2025-08-25 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-19 |
|  | *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-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
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| ***Reason for change:*** | | For ACR[Stop] lost scenario in offline charging, it is required to record the timestamp of last ACR[Interim] in CDR to get the valid call duration. In online charging, it is also needed to handle CCR[Terminate] lost scenario. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | In offline charging, change IMS CDR to add the field “lastACRInterimTimeStamp”. In online charging, add the description to handle CCR[Terminate] lost scenario | | | | | | | | |
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| ***Consequences if not approved:*** | | Operators’ revenue loss in ACR[Stop] lost scenario since incomplete CDR can not provide valid call duration. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.1.3.3, 6.1.3.4, 6.1.3.6, 6.1.3.7, 6.1.3.9, 6.1.3.10, 6.1.3.11, 6.1.3.12, 6.1.3.13, 6.1.3.14 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | | Revision of S5-253621 | | | | | | | | |

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| **First change** |



6.1.3.3 S-CSCF CDR content

**Table 6.1.3.3.1: Charging data of S-CSCF CDR**

| Field | Category | Description |
| --- | --- | --- |
| Record Type | M | Identifies the type of record. The parameter is derived from the Node functionality parameter. |
| Retransmission | OC | This parameter, when present, indicates that information from retransmitted Charging Data Requests has been used in this CDR |
| SIP Method | OC | Specifies the SIP-method for which the CDR is generated. Only available in session unrelated cases. |
| Event | OC | This field identifies the SIP event package to which the SIP request is referred. |
| Expires Information | OC | This field indicates the validity time of either the SIP message or its content, depending on the SIP method. |
| Role of node | OM | This field indicates whether the S-CSCF is serving the Originating or the Terminating party. |
| Node Address | OM | This item holds the address of the node providing the information for the CDR. This may either be the IP address or the FQDN of the IMS node generating the accounting data. |
| Session ID | OM | The Session identification. For a SIP session the Session-ID contains the SIP Call ID as defined in the Session Initiation Protocol RFC 3261 [404]. |
| Session Priority | OC | The field contains the priority of the session. |
| List Of Calling Party Address | OM | The address or addresses (Public User ID or Public Service ID) of the party requesting a service or initiating a session. In the case of no P-Asserted-Identify is known, this list shall include one item with the value "unknown". |
| List of Associated URI | OC | The list of non-barred public user identities (SIP URIs and/or Tel URIs) associated to the public user identity under registration. |
| Called Party Address | OM | For SIP transactions, except for registration, this field holds the address of the party (Public User ID or Public Service ID) to whom the SIP transaction is posted.  For registration transactions, this field holds the Public User ID under registration. |
| Requested Party Address | OC | For SIP transactions this field holds the address of the party (Public User ID or Public Service ID) to whom the SIP transaction was originally posted.  This field is only present if different from the Called Party Address parameter. |
| Number Portability routing information | OC | This field includes information on number portability after DNS/ENUM request from S-CSCF in the calling user's home network. |
| Carrier Select routing information | OC | This field includes information on carrier select after DNS/ENUM request from S-CSCF in the calling user's home network. |
| List of Called Asserted Identity | OC | The address or addresses of the final asserted identities. Present if the final asserted identities are available in the SIP 2xx response. |
| List of Called Identity Changes | OC | List of terminating identity address changes and associated timestamps. |
| Called Identity Change Time Stamp | OC | Timestamp of SIP UPDATE or SIP RE-INVITE with changed terminating identity information. |
| Called Identity | OC | Changed terminating identity information received in a SIP UPDATE or SIP RE-INVITE. |
| Private User ID | OC | Holds the used private user identity of the served party according to RFC2486 [405] if available*.* |
| List of Subscription Id | OM | Holds the public user identities of the served user |
| Service Request Time Stamp | OM | This field contains the time stamp, which indicates the time at which the service was requested. |
| Service Request Time Stamp Fraction | OM | This parameter contains the milliseconds fraction in relation to the Service Request Time Stamp. |
| Service Delivery Start Time Stamp | OM | This field holds the time stamp reflecting either: successful session set-up, a delivery unrelated service, an unsuccessful session set-up and an unsuccessful session unrelated request. |
| Service Delivery Start Time Stamp Fraction | OM | This parameter contains the milliseconds fraction in relation to the Service Delivery Start Time Stamp. |
| Service Delivery End Time Stamp | OC | This field records the time at which the service delivery was terminated. It is Present only in SIP session related case. |
| Service Delivery End Time Stamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the Service Delivery End Time Stamp. |
| Record Opening Time | OC | A time stamp reflecting the time the CDF opened this record. Present only in SIP session related case. |
| Record Closure Time | OM | A Time stamp reflecting the time the CDF closed the record. |
| Application Servers Information | OC | This a grouped CDR field containing the fields: "Application Server Involved" and "Application Provided Called Parties ". |
| Application Servers Involved | OC | Holds the ASs (if any) identified by the SIP URIs. |
| Application Provided Called Parties | OC | Holds a list of the Called party address(es), if the address(es) are determined by an AS (SIP URI, E.164…). |
| Status | Oc | Holds the abnormal status information of specific ASs (if any) when AS(s) respond 4xx/5xx or time out to S-CSCF during an IMS session. |
| List of Inter Operator Identifiers | OC | Holds the identification of the home network (originating and terminating) if exchanged via SIP signalling, as recorded in the P-Charging-Vector header. This grouped field may occur several times in one CDR. |
| Originating IOI | OC | This parameter corresponds to Orig-IOI header of the P-Charging-Vector defined in TS 24.229 [204]. |
| Terminating IOI | OC | This parameter corresponds to Term-IOI header of the P-Charging-Vector defined in TS 24.229 [204]. |
| Transit IOI List | Oc | This parameter corresponds to Transit-IOI List of the P-Charging-Vector defined in TS 24.229 [204]. This field may occur several times in one CDR. Each occurrence represents transit IOI values received from the path inbound to or outbound from the S-CSCF. |
| Local Record Sequence Number | OM | This field includes a unique record number created by S-CSCF. The number is allocated sequentially for each partial CDR (or whole CDR) including all CDR types. The number is unique within the CDF. |
| Record Sequence Number | OC | This field contains a running sequence number employed to link the partial records generated by the CDF for a particular session. |
| Cause For Record Closing | OM | This field contains a reason for the close of the CDR. |
| Incomplete CDR Indication | OC | This field provides additional diagnostics when the CDF detects missing Charging Data Requests. |
| IMS Charging Identifier | OM | This parameter holds the IMS charging identifier (ICID) as generated by the IMS node for the SIP session. |
| List of Early SDP Media Components | OC | This is a grouped field which may occur several times in one CDR.  This field shall not be present if no media components are set to active before the final SIP session answer to the initial SIP Invite is received.  This field can be present in either session or event CDRs. |
| SDP Session Description | OC | Holds the Session portion of SDP data exchanged in the above mentioned scenario, if available. |
| SDP Type | OM | This parameter indicates if the SDP media component is an SDP offer or SDP answer. |
| SDP Offer Timestamp | OM | This parameter contains the time of the SIP request which conveys the SDP offer. |
| SDP Answer Timestamp | OM | This parameter contains the time of the response to the SIP request which conveys the SDP answer. |
| SDP Media Components | OM | This is a grouped field comprising several sub-fields associated with one media component. Since several media components may exist for a session in parallel these sub-fields may occur several times. |
| SDP Media Name | OM | This field holds the name of the media as available in the SDP data. |
| SDP Media Description | OM | This field holds the attributes of the media as available in the SDP data. |
| Access Correlation ID | OC | This parameter holds the charging identifier from the access network, consisting of either GPRS charging ID (GCID) which is generated by the GGSN for a GPRS PDP context, Charging Id which is generated by P-GW for IP-CAN bearer or the Access Network Charging Identifier Value which is generated by another type of access network.  It is present only if received from the access network when PCC architecture is implemented. |
| Media Initiator flag | OC | This field indicates if the called party has requested the session modification and it is present only if the initiator was the called party. |
| List of SDP Media Components | OC | This is a grouped field which may occur several times in one CDR.  The field is present only in a SIP session related case. |
| SDP Session Description | OC | Holds the Session portion of the SDP data exchanged between the User Agents if available in the SIP transaction. |
| SDP Type | OM | This parameter indicates if the SDP media component is an SDP offer or SDP answer. |
| SIP Request Timestamp | OC | This parameter contains the time of the SIP request (usually a (RE-)INVITE). |
| SIP Response Timestamp | OC | This parameter contains appropriately the time of SIP 200 OK acknowledging an SIP INVITE or of SIP ACK including an SDP answer. |
| SIP Request Timestamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the SIP Request Timestamp. |
| SIP Response Timestamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the SIP Response Timestamp. |
| SDP Media Components | OM | This is a grouped field comprising several sub-fields associated with one media component. Since several media components may exist for a session in parallel these sub-fields may occur several times. |
| SDP Media Name | OM | This field holds the name of the media as available in the SDP data. |
| SDP Media Description | OM | This field holds the attributes of the media as available in the SDP data. |
| Access Correlation ID | OC | This parameter holds the charging identifier from the access network, consisting of either GPRS charging ID (GCID) which is generated by the GGSN for a GPRS PDP context, Charging Id which is generated by P-GW for IP-CAN bearer or the Access Network Charging Identifier Value which is generated by another type of access network.  It is present only if received from the access network when PCC architecture is implemented. |
| Media Initiator flag | OC | This field indicates if the called party has requested the session modification and it is present only if the initiator was the called party. |
| GGSN Address | OC | This parameter holds the control plane IP address of the GGSN that handles one or more media component(s) of an IMS session. |
| Service Reason Return Code | OM | This parameter provides the returned SIP status code for the service request for the successful and failure case, |
| List Of Reason Header | OC | This parameter contains the list of SIP reason headers included in BYE or CANCEL method terminating the service,  Reliability of this information is not guaranteed if the SIP or CANCEL is originated outside of the trust domain which is determined by the Operator on a "per parameter basis ". |
| List of Message Bodies | OC | This grouped field comprising several sub-fields describing the data that may be conveyed end-to-end in the body of a SIP message. Since several message bodies may be exchanged via SIP-signalling, this grouped field may occur several times. |
| Content-Type | OM | This sub-field of Message Bodies holds the MIME type of the message body, Examples are: application/zip, image/gif, audio/mpeg, etc. |
| Content-Disposition | OC | This sub-field of Message Bodies holds the content disposition of the message body inside the SIP signalling, Content-disposition header field equal to "render", indicates that "the body part should be displayed or otherwise rendered to the user". Content disposition values are: session, render, inline, icon, alert, attachment, etc. |
| Content-Length | OM | This sub-field of Message Bodies holds the size of the data of a message body in bytes. |
| Originator | OC | This sub-field of the "List of Message Bodies" indicates the originating party of the message body. |
| Access Network Information | OC | This field contains the content of one SIP P-header "P-Access-Network-Info", available in the IMS Node when charging session starts, if available. |
| Additional Access Network Information | OC | This field contains the content of an additional SIP P-header "P-Access-Network-Info", available in the IMS Node as additional location when charging session starts, if available. |
| Cellular Network Information | OC | This field contains the content of one SIP "Cellular-Network-Info" header, when the UE supporting one or more cellular radio access technologies but using a non-cellular IP-CAN, such as untrusted WLAN access, provides this header field to relay information to its service provider about the radio cell identity of the cellular radio access network on which the UE most recently camped. |
| List of Access Network Info Change | OC | This field is a list of grouped field describing the subsequent SIP P-header "P-Access-Network-Info" changes. |
| Access Network Information | OC | This field holds the content of the SIP P-header "P-Access-Network-Info", when changed from the previous one. |
| Additional Access Network Information | OC | This field holds the content of additional SIP P-header "P-Access-Network-Info" when changed from the previous one, if available. |
| Cellular Network Information | OC | This field contains the content of one SIP "Cellular-Network-Info" header, when the UE supporting one or more cellular radio access technologies but using a non-cellular IP-CAN, such as untrusted WLAN access, provides this header field to relay information to its service provider about the radio cell identity of the cellular radio access network on which the UE most recently camped. This field is applicable when changed from the previous one, if available. |
| Access Change Time | OC | This field contains the time at which the changed user location information was acquired. |
| Service Context Id | OM | Holds the context information to which the CDR belongs. The information is obtained from the Operation Token of the Charging Data Request message. |
| IMS Communication Service ID | OC | This field contains the IMS communication service identifier if received in the P-Asserted-Service header in the SIP request. |
| Online Charging Flag | OC | This field indicates the Online Charging Request was sent based on the provided ECF address from the SIP P-header "P-Charging-Function-Addresses".  NOTE: No proof that online charging action has been taken |
| Real Time Tariff Information | OC | This field holds the tariff/add-on charge received. |
| User Location Info | OC | This field contains the network provided location information for 3GPP accesses, available in the IMS Node when charging session starts, if available. |
| MS Time Zone | OC | This field indicates the offset between universal time and local time in steps of 15 minutes of where the MS currently resides. |
| NNI Information | Oc | This grouped field holds information about the NNI used for interconnection and roaming on the loopback routing path. It is present only if "VPLMN routing" is applied in a Roaming Architecture for Voice over IMS with Local breakout. |
| NNI Type | Oc | This field indicates usage of the roaming NNI for loopback routing, i.e. S-CSCF performed the loopback decision. |
| From Address | OM | Contains the information from the SIP From header. |
| IMS Emergency Indication | OC | This field indicates the registration is an emergency registration or the IMS session is an IMS emergency session, and is present only for emergency cases. |
| IMS Visited Network Identifier | OC | Contains the information from the SIP P-Visited-Network-ID header received in a REGISTER request. |
| SIP Route header received | OC | Contains the information in the topmost route header in a received initial SIP INVITE or non-session related SIP MESSAGE request prior to triggering of any ASs. This field is present only for requests from the served user. |
| SIP Route header transmitted | OC | Contains the information in the route header representing the destination in a transmitted SIP INVITE or non-session related SIP MESSAGE request following triggering of all application servers. This field is present for requests toward the served user and for requests from the served user when “VPLMN routing” is applied in a Roaming Architecture for Voice over IMS with Local breakout. |
| Subscriber Equipment Number | OC | This field contains the identification of the mobile device ( e.g. IMEI) that the subscriber is using. |
| Instance Id | OC | This field uniquely identifies the device (fixed or mobile) of the served user. |
| ACR Interim Time Stamp | OC | This field contains the event time stamp carried in the latest ACR[Interim] CDF receives. It is Present only in session related charging. |
| Record Extensions | OC | A set of operator/manufacturer specific extensions to the record, conditioned upon existence of an extension. |

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| **Second change** |

6.1.3.4 P-CSCF CDR content

**Table 6.1.3.4.1: Charging data of P-CSCF CDR**

| Field | Category | Description |
| --- | --- | --- |
| Record Type | M | Identifies the type of record. The parameter is derived from the Node functionality parameter. |
| Retransmission | OC | This parameter, when present, indicates that information from retransmitted Charging Data Requests has been used in this CDR. |
| SIP Method | OC | Specifies the SIP-method for which the CDR is generated. Only available in session unrelated cases. |
| Event | OC | This field identifies the SIP event package to which the SIP request is referred. |
| Expires Information | OC | This field indicates the validity time of either the SIP message or its content, depending on the SIP method. |
| Role of node | OM | This field indicates whether the P-CSCF is serving the Originating or the Terminating party. |
| Node Address | OM | This item holds the address of the node providing the information for the CDR. This may either be the IP address or the FQDN of the IMS node generating the accounting data. |
| Session ID | OM | The Session identification. For a SIP session the Session-ID contains the SIP Call ID as defined in the Session Initiation Protocol RFC 3261 [404]. |
| Session Priority | OC | The field contains the priority of the session. |
| List Of Calling Party Address | OM | The address (Public User ID or Public Service ID) of the party requesting a service or initiating a session. In the case of no P-Asserted-Identify is known, this list shall include one item with the value "unknown"  Note: For P-CSCF, only one address is present |
| List of Associated URI | OC | The list of non-barred public user identities (SIP URIs and/or Tel URIs) associated to the public user identity under registration. |
| Called Party Address | OM | In the context of an end-to-end SIP transaction this field holds the address of the party (Public User ID) to whom the SIP transaction is posted. For emergency calls, this parameter could contain an URN. |
| List of Called Asserted Identity | OC | The address or addresses of the final asserted identities. Present if the final asserted identities are available in the SIP 2xx response. |
| List of Called Identity Changes | OC | List of terminating identity address changes and associated timestamps. |
| Called Identity Change Time Stamp | OC | Timestamp of SIP UPDATE or SIP RE-INVITE with changed terminating identity information. |
| Called Identity | OC | Changed terminating identity information received in a SIP UPDATE or SIP RE-INVITE. |
| Served Party IP Address | OM | This field contains the IP address of either the calling or called party, depending on whether the P-CSCF is in touch with the calling or called network. |
| List of Subscription Id | OM | Holds the public user identities of the served user. |
| Service Request Time Stamp | OM | This field contains the time stamp, which indicates the time at which the service was requested. |
| Service Request Time Stamp Fraction | OM | This parameter contains the milliseconds fraction in relation to the Service Request Time Stamp. |
| Service Delivery Start Time Stamp | OM | This field holds the time stamp reflecting either: successful session set-up, a delivery unrelated service, an unsuccessful session set-up and an unsuccessful session unrelated request. |
| Service Delivery Start Time Stamp Fraction | OM | This parameter contains the milliseconds fraction in relation to the Service Delivery Start Time Stamp. |
| Service Delivery End Time Stamp | OC | This field records the time at which the service delivery was terminated. It is Present only in SIP session related case. Present with Charging Data Request [Stop]. |
| Service Delivery End Time Stamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the Service Delivery End Time Stamp. |
| Record Opening Time | OC | A time stamp reflecting the time the CDF opened this record. Present only in SIP session related case. |
| Record Closure Time | OM | A Time stamp reflecting the time the CDF closed the record. |
| Inter Operator Identifiers | OC | Holds the identification of the home network (originating and terminating) if exchanged via SIP signalling, as recorded in the *P-Charging-Vector header.* |
| Originating IOI | OC | This parameter corresponds to Orig-IOI header of the P-Charging-Vector defined in TS 24.229 [204]. |
| Terminating IOI | OC | This parameter corresponds to Term-IOI header of the P-Charging-Vector defined in TS 24.229 [204]. |
| Transit IOI List | Oc | This parameter corresponds to Transit-IOI List of the P-Charging-Vector defined in TS 24.229 [204]. |
| Local Record Sequence Number | OM | This field includes a unique record number created by this node. The number is allocated sequentially for each partial CDR (or whole CDR) including all CDR types. The number is unique within the CDF. |
| Record Sequence Number | OC | This field contains a running sequence number employed to link the partial records generated by the CDF for a particular session. |
| Cause For Record Closing | OM | This field contains a reason for the close of the CDR. |
| Incomplete CDR Indication | OC | This field provides additional diagnostics when the CDF detects missing Charging Data Requests. |
| IMS Charging Identifier | OM | This parameter holds the IMS charging identifier (ICID) as generated by the IMS node for the SIP session. |
| Related IMS Charging Identifier | OC | This parameter holds the Related IMS charging identifier when the session is the target access leg in case of access transfer. |
| Related IMS Charging Identifier Generation Node | OC | This parameter holds the identifier of the server that generated the Related IMS charging identifier. |
| List of Early SDP Media Components | OC | This is a grouped field which may occur several times in one CDR.  This field shall not be present if no media components are set to active before the final SIP session answer to the initial SIP Invite is received.  This field can be present in either session or event CDRs. |
| SDP Session Description | OC | Holds the Session portion of SDP data exchanged in the above mentioned scenario, if available. |
| SDP Type | OM | This parameter indicates if the SDP media component is an SDP offer or SDP answer. |
| SDP Offer Timestamp | OM | This parameter contains the time of the SIP request which conveys the SDP offer. |
| SDP Answer Timestamp | OM | This parameter contains the time of the response to the SIP request which conveys the SDP answer. |
| SDP Media Components | OM | This is a grouped field comprising several sub-fields associated with one media component. Since several media components may exist for a session in parallel these sub-fields may occur several times. |
| SDP Media Name | OM | This field holds the name of the media as available in the SDP data. |
| SDP Media Description | OM | This field holds the attributes of the media as available in the SDP data. |
| Access Correlation ID | OC | This parameter holds the charging identifier from the access network, consisting of either GPRS charging ID (GCID) which is generated by the GGSN for a GPRS PDP context, Charging Id which is generated by P-GW for IP-CAN bearer or the Access Network Charging Identifier Value which is generated by another type of access network.  It is present only if received from the access network when PCC architecture is implemented. |
| Media Initiator flag | OC | This field indicates if the called party has requested the session modification and it is present only if the initiator was the called party. |
| List of SDP Media Components | OC | This is a grouped field which may occur several times in one CDR.  The field is present only in a SIP session related case. |
| SDP Session Description | OC | Holds the Session portion of the SDP data exchanged between the User Agents if available in the SIP transaction. |
| SDP Type | OM | This parameter indicates if the SDP media component is an SDP offer or SDP answer. |
| SIP Request Timestamp | OC | This parameter contains the time of the SIP request (usually a (RE-)INVITE). This parameter corresponds to SIP Request Timestamp in Charging Data Request [Interim]. |
| SIP Response Timestamp | OC | This parameter contains appropriately the time of SIP 200 OK acknowledging an SIP INVITE or of SIP ACK including an SDP answer. This parameter corresponds to SIP Response Timestamp in Charging Data Request. |
| SIP Request Timestamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the SIP Request Timestamp. |
| SIP Response Timestamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the SIP Response Timestamp. |
| SDP Media Components | OM | This is a grouped field comprising several sub-fields associated with one media component. Since several media components may exist for a session in parallel these sub-fields may occur several times. |
| SDP Media Name | OM | This field holds the name of the media as available in the SDP data. This parameter corresponds to SDP-Media-Name. |
| SDP Media Description | OM | This field holds the attributes of the media as available in the SDP data. This parameter corresponds to SDP-Media-Description. |
| Local GW Inserted Indication | OC | This field indicates whether the local IMS-AGW is inserted or not, for the media component included in SDP answer, if available. |
| IP realm Default Indication | OC | This field indicates whether the User Plane IP realm associated to the media component included in SDP answer, is the Default IP realm or not, if available. |
| Access Correlation ID | OC | This parameter holds the charging identifier from the access network, consisting of either GPRS charging ID (GCID) which is generated by the GGSN for a GPRS PDP context, Charging Id which is generated by P-GW for IP-CAN bearer or the Access Network Charging Identifier Value which is generated by another type of access network.  It is present only if received from the access network when PCC architecture is implemented. |
| Media Initiator flag | OC | This field indicates if the called party has requested the session modification and it is present only if the initiator was the called party. |
| GGSN Address | OC | This parameter holds the control plane IP address of the GGSN that handles one or more media component(s) of a IMS session. |
| Service Reason Return Code | OM | This parameter provides the returned SIP status code for the service request for the successful and failure case, |
| List Of Reason Header | OC | This parameter contains the list of SIP reason headers included in BYE or CANCEL method terminating the service,  Reliability of this information is not guaranteed if the SIP or CANCEL is originated outside of the trust domain which is determined by the Operator on a "per parameter basis". |
| List of Message Bodies | OC | This grouped field comprising several sub-fields describing the data that may be conveyed end-to-end in the body of a SIP message. Since several message bodies may be exchanged via SIP-signalling, this grouped field may occur several times. |
| Content-Type | OM | This sub-field of Message Bodies holds the MIME type of the message body, Examples are: application/zip, image/gif, audio/mpeg, etc. |
| Content-Disposition | OC | This sub-field of Message Bodies holds the content disposition of the message body inside the SIP signalling, Content-disposition header field equal to "render", indicates that "the body part should be displayed or otherwise rendered to the user". Content disposition values are: session, render, inline, icon, alert, attachment, etc. |
| Content-Length | OM | This sub-field of Message Bodies holds the size of the data of a message body in bytes. |
| Originator | OC | This sub-field of the "List of Message Bodies" indicates the originating party of the message body. |
| Access Network Information | OC | This field contains the content of one SIP P-header "P-Access-Network-Info", available in the IMS Node when charging session starts, if available. |
| Additional Access Network Information | OC | This field contains the content of an additional SIP P-header "P-Access-Network-Info", available in the IMS Node as additional location when charging session starts, if available. |
| Cellular Network Information | OC | This field contains the content of one SIP "Cellular-Network-Info" header, when the UE supporting one or more cellular radio access technologies but using a non-cellular IP-CAN, such as untrusted WLAN access, provides this header field to relay information to its service provider about the radio cell identity of the cellular radio access network on which the UE most recently camped. |
| List of Access Network Info Change | OC | This field is a list of grouped field describing the subsequent SIP P-header "P-Access-Network-Info" changes. |
| Access Network Information | OC | This field holds the content of the SIP P-header "P-Access-Network-Info", when changed from the previous one. |
| Additional Access Network Information | OC | This field holds the content of additional SIP P-header "P-Access-Network-Info" when changed from the previous one, if available. |
| Cellular Network Information | OC | This field contains the content of one SIP "Cellular-Network-Info" header, when the UE supporting one or more cellular radio access technologies but using a non-cellular IP-CAN, such as untrusted WLAN access, provides this header field to relay information to its service provider about the radio cell identity of the cellular radio access network on which the UE most recently camped. This field is applicable when changed from the previous one, if available. |
| Access Change Time | OC | This field contains the time at which the changed user location information was acquired. |
| Service Context Id | OM | Holds the context information to which the CDR belongs. The information is obtained from the Operation Token of the Charging Data Request message. |
| IMS Communication Service ID | OC | This field contains the IMS communication service identifier if received in the P-Asserted-Service header in the SIP request when the P-CSCF is serving the Terminating party or the topmost occurrence of the "+g.3gpp.icsi-ref" header field parameter of the Feature-Caps header in the SIP response when the P-CSCF is serving the Originating party. |
| IMS Application Reference ID | OC | This field contains the IMS application reference identifier if received in the SIP request. |
| User Location Info | OC | This field contains the network provided location information for 3GPP accesses available in the IMS Node when charging session starts, if available . |
| MS Time Zone | OC | This field indicates the offset between universal time and local time in steps of 15 minutes of where the MS currently resides. |
| NNI Information | OC | This grouped field holds information about the NNI used for interconnection and roaming on the loopback routing path. It is present only if RAVEL “VPLMN routing” is applied. |
| NNI Type | OC | This field indicates usage of the roaming NNI for loopback routing, The loopback indication was received by the P-CSCF. |
| From Address | OM | Contains the information from the SIP From header. |
| IMS Emergency Indication | OC | This field indicates the registration is an emergency registration or the IMS session is an IMS emergency session, and is present only for emergency cases. |
| IMS Visited Network Identifier | OC | Contains the information from the SIP P-Visited-Network-ID header sent in a REGISTER request. |
| SIP Route header received | OC | Contains the information in the topmost route header in a received initial SIP INVITE or non-session related SIP MESSAGE request. This field is used for SIP requests toward the served user. |
| SIP Route header transmitted | OC | Contains the information in the route header representing the destination in a transmitted initial SIP INVITE or non-session related SIP MESSAGE request. This field is used for SIP requests from the served user. |
| Subscriber Equipment Number | OC | This field contains the identification of the mobile device (e.g. IMEI) that the subscriber is using. |
| Instance Id | OC | This field uniquely identifies the device (fixed or mobile) of the served user. |
| ACR Interim Time Stamp | OC | This field contains the event time stamp carried in the latest ACR[Interim] CDF receives. It is Present only in session related charging. |
| Record Extensions | OC | A set of operator/manufacturer specific extensions to the record, conditioned upon existence of an extension. |

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| **Third change** |

6.1.3.6 MRFC CDR content

**Table 6.1.3.6.1: Charging data of MRFC CDR**

| Field | Category | Description |
| --- | --- | --- |
| Record Type | M | Identifies the type of record. The parameter is derived from the Node functionality parameter. |
| Retransmission | OC | This parameter, when present, indicates that information from retransmitted Charging Data Requests has been used in this CDR. |
| SIP Method | OC | Specifies the SIP-method for which the CDR is generated. Only available in session unrelated cases. |
| Event | OC | This field identifies the SIP event package to which the SIP request is referred. |
| Expires Information | OC | This field indicates the validity time of either the SIP message or its content, depending on the SIP method. |
| Node Address | OM | This item holds the address of the node providing the information for the CDR. This may either be the IP address or the FQDN of the IMS node generating the accounting data. |
| Session ID | OM | The Session identification. For a SIP session the Session-ID contains the SIP Call ID as defined in the Session Initiation Protocol RFC 3261 [404]. |
| Service ID | OM | This field identifies the service the MRFC is hosting. For conferences the conference ID is used here. |
| Session Priority | OC | The field contains the priority of the session. |
| List Of Calling Party Address | OM | The address or addresses (Public User ID or Public Service ID) of the party requesting a service or initiating a session. In the case of no P-Asserted-Identify is known, this list shall include a one item with the value "unknown". |
| Called Party Address | OC | For SIP transactions, except for registration, this field holds the address of the party (Public User ID or Public Service ID) to whom the SIP transaction is posted.  For registration transactions, this field holds the Public User ID under registration. |
| Requested Party Address | OC | For SIP transactions this field holds the address of the party (Public User ID or Public Service ID) to whom the SIP transaction was originally posted.  This field is only present if different from the Called Party Address parameter. |
| List of Called Asserted Identity | OC | The address or addresses of the final asserted identities. Present if the final asserted identities are available in the SIP 2xx response. |
| List of Subscription Id | OM | Holds the public user identities of the served user |
| Service Request Time Stamp | OM | This field contains the time stamp which indicates the time at which the service was requested. This parameter corresponds to SIP Request Timestamp. Present with Charging Data Request [Start] and Charging Data Request [Event]. |
| Service Request Time Stamp Fraction | OM | This parameter contains the milliseconds fraction in relation to the Service Request Time Stamp. |
| Service Delivery Start Time Stamp | OM | This field holds the time stamp reflecting either: successful session set-up, a delivery unrelated service, an unsuccessful session set-up and an unsuccessful session unrelated request. This parameter corresponds to SIP Response Timestamp. Present with Charging Data Request [Start] and Charging Data Request [EVENT]. |
| Service Delivery Start Time Stamp Fraction | OM | This parameter contains the milliseconds fraction in relation to the Service Delivery Start Time Stamp. |
| Service Delivery End Time Stamp | OC | This field records the time at which the service delivery was terminated. It is Present only in SIP session related case. This parameter corresponds to SIP Request Timestamp. Present with Charging Data Request [Stop]. |
| Service Delivery End Time Stamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the Service Delivery End Time Stamp. |
| Record Opening Time | OC | A time stamp reflecting the time the CDF opened this record. Present only in SIP session related case. |
| Record Closure Time | OM | A Time stamp reflecting the time the CDF closed the record. |
| Application Servers Information | OC | This is a grouped CDR field containing the fields: "Application Server Involved" and "Application Provided Called Parties". |
| Application Servers Involved | OC | Holds the ASs (if any) identified by the SIP URIs. |
| Application Provided Called Parties | OC | Holds a list of the Called party address(es), if the address(es) are determined by an AS (SIP URI, E.164…). |
| Inter Operator Identifiers | OC | Holds the identification of the home network (originating and terminating) if exchanged via SIP signalling, as recorded in the *P-Charging-Vector header.* |
| Originating IOI | OC | This parameter corresponds to Orig-IOI header of the P-Charging-Vector defined in TS 24.229 [204]. |
| Terminating IOI | OC | This parameter corresponds to Term-IOI header of the P-Charging-Vector defined in TS 24.229 [204]. |
| Transit IOI List | Oc | This parameter corresponds to Transit-IOI List of the P-Charging-Vector defined in TS 24.229 [204]. |
| Local Record Sequence Number | OM | This field includes a unique record number created by this node. The number is allocated sequentially for each partial CDR (or whole CDR) including all CDR types. The number is unique within the CDF. |
| Record Sequence Number | OC | This field contains a running sequence number employed to link the partial records generated by the CDF for a particular session. |
| Cause For Record Closing | OM | This field contains a reason for the close of the CDR. |
| Incomplete CDR Indication | OC | This field provides additional diagnostics when the CDF detects missing Charging Data Requests. |
| IMS Charging Identifier | OM | This parameter holds the IMS charging identifier (ICID) as generated by the IMS node for the SIP session. |
| List of Early SDP Media Components | OC | This is a grouped field which may occur several times in one CDR.  This field shall not be present if no media components are set to active before the final SIP session answer to the initial SIP Invite is received.  This field can be present in either session or event CDRs. |
| SDP Session Description | OC | Holds the Session portion of SDP data exchanged in the above mentioned scenario, if available. |
| SDP Type | OM | This parameter indicates if the SDP media component is an SDP offer or SDP answer. |
| SDP Offer Timestamp | OM | This parameter contains the time of the SIP request which conveys the SDP offer. |
| SDP Answer Timestamp | OM | This parameter contains the time of the response to the SIP request which conveys the SDP answer. |
| SDP Media Components | OM | This is a grouped field comprising several sub-fields associated with one media component. Since several media components may exist for a session in parallel these sub-fields may occur several times. |
| SDP Media Name | OM | This field holds the name of the media as available in the SDP data. |
| SDP Media Description | OM | This field holds the attributes of the media as available in the SDP data. |
| Access Correlation ID | OC | This parameter holds the charging identifier from the access network, consisting of either GPRS charging ID (GCID) which is generated by the GGSN for a GPRS PDP context, Charging Id which is generated by P-GW for IP-CAN bearer or the Access Network Charging Identifier Value which is generated by another type of access network.  It is present only if received from the access network when PCC architecture is implemented. |
| Media Initiator flag | OC | This field indicates if the called party has requested the session modification and it is present only if the initiator was the called party. |
| List of SDP Media Components | OC | This is a grouped field which may occur several times in one CDR.  The field is present only in a SIP session related case |
| SDP Session Description | OC | Holds the Session portion of the SDP data exchanged between the User Agents if available in the SIP transaction. |
| SDP Type | OM | This parameter indicates if the SDP media component is an SDP offer or SDP answer. |
| SIP Request Timestamp | OC | This parameter contains the time of the SIP request (usually a (RE-)INVITE). This parameter corresponds to SIP Request Timestamp in the Charging Data Request [Interim]. |
| SIP Response Timestamp | OC | This parameter contains the time of the response to the SIP request (usually a SIP 200 OK). This parameter corresponds to SIP Response Timestamp In the Charging Data Request [Interim]. |
| SIP Request Timestamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the SIP Request Timestamp. |
| SIP Response Timestamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the SIP Response Timestamp. |
| SDP Media Components | OM | This is a grouped field comprising several sub-fields associated with one media component. Since several media components may exist for a session in parallel these sub-fields may occur several times. |
| SDP Media Name | OM | This field holds the name of the media as available in the SDP data. This parameter corresponds to SDP-Media-Name. |
| SDP Media Description | OM | This field holds the attributes of the media as available in the SDP data. |
| Access Correlation ID | OC | This parameter holds the charging identifier from the access network, consisting of either GPRS charging ID (GCID) which is generated by the GGSN for a GPRS PDP context, Charging Id which is generated by P-GW for IP-CAN bearer or the Access Network Charging Identifier Value which is generated by another type of access network.  It is present only if received from the access network when PCC architecture is implemented. |
| Media Initiator flag | OC | This field indicates if the called party has requested the session modification and it is present only if the initiator was the called party. |
| GGSN Address | OC | This parameter holds the control plane IP address of the GGSN that handles one or more media component(s) of a IMS session. |
| Service Reason Return Code | OM | This parameter provides the returned SIP status code for the service request for the successful and failure case, |
| List Of Reason Header | OC | This parameter contains the list of SIP reason headers included in BYE or CANCEL method terminating the service,  Reliability of this information is not guaranteed if the SIP or CANCEL is originated outside of the trust domain which is determined by the Operator on a "per parameter basis". |
| Access Network Information | OC | This field contains the content of one SIP P-header "P-Access-Network-Info", available in the IMS Node when charging session starts, if available. |
| Additional Access Network Information | OC | This field contains the content of an additional SIP P-header "P-Access-Network-Info" available in the IMS Node as additional location when charging session starts,if available. |
| Cellular Network Information | OC | This field contains the content of one SIP "Cellular-Network-Info" header, when the UE supporting one or more cellular radio access technologies but using a non-cellular IP-CAN, such as untrusted WLAN access, provides this header field to relay information to its service provider about the radio cell identity of the cellular radio access network on which the UE most recently camped. |
| List of Access Network Info Change | OC | This field is a list of grouped field describing the subsequent SIP P-header "P-Access-Network-Info" changes. |
| Access Network Information | OC | This field holds the content of the SIP P-header "P-Access-Network-Info", when changed from the previous one. |
| Additional Access Network Information | OC | This field holds the content of additional SIP P-header "P-Access-Network-Info" when changed from the previous one, if available. |
| Cellular Network Information | OC | This field contains the content of one SIP "Cellular-Network-Info" header, when the UE supporting one or more cellular radio access technologies but using a non-cellular IP-CAN, such as untrusted WLAN access, provides this header field to relay information to its service provider about the radio cell identity of the cellular radio access network on which the UE most recently camped. This field is applicable when changed from the previous one, if available. |
| Access Change Time | OC | This field contains the time at which the changed user location information was acquired. |
| Service Context Id | OM | Holds the context information to which the CDR belongs. The information is obtained from the Operation Token of the Charging Data Request message. |
| Online Charging Flag | OC | This field indicates the Online Charging Request was sent based on the provided ECF address from the SIP P-header "P-Charging-Function-Addresses".  NOTE: No proof that online charging action has been taken |
| User Location Info | OC | This field contains the network provided location information for 3GPP accesses available in the IMS Node when charging session starts, if available. |
| MS Time Zone | OC | This field indicates the offset between universal time and local time in steps of 15 minutes of where the MS currently resides. |
| From Address | OM | Contains the information from the SIP From header. |
| ACR Interim Time Stamp | OC | This field contains the event time stamp carried in the latest ACR[Interim] CDF receives. It is Present only in session related charging. |
| Record Extensions | OC | A set of operator/manufacturer specific extensions to the record, conditioned upon existence of an extension. |

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| **Fourth change** |

6.1.3.7 MGCF CDR content

**Table 6.1.3.7.1: Charging data of MGCF CDR**

| Field | Category | Description |
| --- | --- | --- |
| Record Type | M | Identifies the type of record. The parameter is derived from the Node functionality parameter. |
| Retransmission | OC | This parameter, when present, indicates that information from retransmitted Charging Data Requests has been used in this CDR |
| SIP Method | OC | Specifies the SIP-method for which the CDR is generated. Only available in session unrelated cases. |
| Event | OC | This field identifies the SIP event package to which the SIP request is referred. |
| Expires Information | OC | This field indicates the validity time of either the SIP message or its content, depending on the SIP method. |
| Role of node | OM | This field indicates whether the MGCF is serving the Originating or the Terminating party. |
| Node Address | OM | This item holds the address of the node providing the information for the CDR. This may either be the IP address or the FQDN of the IMS node generating the accounting data. |
| Session ID | OM | The Session identification. For a SIP session the Session-ID contains the SIP Call ID as defined in the Session Initiation Protocol RFC 3261 [404]. |
| Session Priority | OC | The field contains the priority of the session. |
| List Of Calling Party Address | OM | The address or addresses (Public User ID or Public Service ID) of the party requesting a service or initiating a session. In the case of no P-Asserted-Identify is known, this list shall include a one item with the value "unknown". |
| Called Party Address | OM | In the context of an end-to-end SIP transaction this field holds the address of the party (Public User ID) to whom the SIP transaction is posted. |
| Number Portability routing information | OC | This field includes information on number portability after DNS/ENUM request from S-CSCF in the calling user's home network. |
| Carrier Select routing information | OC | This field includes information on carrier select after DNS/ENUM request from S-CSCF in the calling user's home network. |
| Service Request Time Stamp | OM | This field contains the time stamp which indicates the time at which the service was requested. This parameter corresponds to SIP Request Timestamp. Present with Charging Data Request [Start] and Charging Data Request [Event]. |
| Service Request Time Stamp Fraction | OM | This parameter contains the milliseconds fraction in relation to the Service Request Time Stamp. |
| Service Delivery Start Time Stamp | OM | This field holds the time stamp reflecting either: successful session set-up, a delivery unrelated service, an unsuccessful session set-up and an unsuccessful session unrelated request. This parameter corresponds to SIP Response Timestamp. Present with Charging Data Request [Start] and Charging Data Request [Event]. |
| Service Delivery Start Time Stamp Fraction | OM | This parameter contains the milliseconds fraction in relation to the Service Delivery Start Time Stamp. |
| Service Delivery End Time Stamp | OC | This field records the time at which the service delivery was terminated. It is Present only in SIP session related case. This parameter corresponds to SIP Request Timestamp. Present with Charging Data Request [Stop]. |
| Service Delivery End Time Stamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the Service Delivery End Time Stamp. |
| Record Opening Time | OC | A time stamp reflecting the time the CDF opened this record. Present only in SIP session related case. |
| Record Closure Time | OM | A Time stamp reflecting the time the CDF closed the record. |
| Inter Operator Identifiers | OC | Holds the identification of the home network (originating and terminating) if exchanged via SIP signalling, as recorded in the *P-Charging-Vector header.* |
| Originating IOI | OC | This parameter corresponds to Orig-IOI header of the P-Charging-Vector defined in TS 24.229 [204]. |
| Terminating IOI | OC | This parameter corresponds to Term-IOI header of the P-Charging-Vector defined in TS 24.229 [204]. |
| Transit IOI List | Oc | This parameter corresponds to Transit-IOI List of the P-Charging-Vector defined in TS 24.229 [204]. |
| Local Record Sequence Number | OM | This field includes a unique record number created by this node. The number is allocated sequentially for each partial CDR (or whole CDR) including all CDR types. The number is unique within the CDF. |
| Record Sequence Number | OC | This field contains a running sequence number employed to link the partial records generated by the CDF for a particular session. |
| Cause For Record Closing | OM | This field contains a reason for the close of the CDR. |
| Incomplete CDR Indication | OC | This field provides additional diagnostics when the CDF detects missing Charging Data Requests. |
| IMS Charging Identifier | OM | This parameter holds the IMS charging identifier (ICID) as generated by the IMS node for the SIP session. |
| List of Early SDP Media Components | OC | This is a grouped field which may occur several times in one CDR.  This field shall not be present if no media components are set to active before the final SIP session answer to the initial SIP Invite is received.  This field can be present in either session or event CDRs. |
| SDP Session Description | OC | Holds the Session portion of SDP data exchanged in the above mentioned scenario, if available. |
| SDP Type | OM | This parameter indicates if the SDP media component is an SDP offer or SDP answer. |
| SDP Offer Timestamp | OM | This parameter contains the time of the SIP Request which conveys the SDP offer. |
| SDP Answer Timestamp | OM | This parameter contains the time of the response to the SIP Request which conveys the SDP answer. |
| SDP Media Components | OM | This is a grouped field comprising several sub-fields associated with one media component. Since several media components may exist for a session in parallel these sub-fields may occur several times. |
| SDP Media Name | OM | This field holds the name of the media as available in the SDP data. |
| SDP Media Description | OM | This field holds the attributes of the media as available in the SDP data. |
| Media Initiator flag | OC | This field indicates if the called party has requested the session modification and it is present only if the initiator was the called party. |
| List of SDP Media Components | OC | This is a grouped field which may occur several times in one CDR.  The field is present only in a SIP session related case. |
| SDP Session Description | OC | Holds the Session portion of the SDP data exchanged between the User Agents if available in the SIP transaction. |
| SDP Type | OM | This parameter indicates if the SDP media component is an SDP offer or SDP answer. |
| SIP Request Timestamp | OC | This parameter contains the time of the SIP Request (usually a (RE-)INVITE). This parameter corresponds to SIP Request Timestamp in Charging Data Request [Interim]. |
| SIP Response Timestamp | OC | This parameter contains appropriately the time of SIP 200 OK acknowledging an SIP INVITE or of SIP ACK including an SDP answer. This parameter corresponds to SIP Response Timestamp in Charging Data Request [Interim]. |
| SIP Request Timestamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the SIP Request Timestamp. |
| SIP Response Timestamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the SIP Response Timestamp. |
| SDP Media Components | OM | This is a grouped field comprising several sub-fields associated with one media component. Since several media components may exist for a session in parallel these sub-fields may occur several times. |
| SDP Media Name | OM | This field holds the name of the media as available in the SDP data. This parameter corresponds to SDP-Media-Name. |
| SDP Media Description | OM | This field holds the attributes of the media as available in the SDP data. |
| Media Initiator flag | OC | This field indicates if the called party has requested the session modification and it is present only if the initiator was the called party. |
| Service Reason Return Code | OM | This parameter provides the returned SIP status code for the service request for the successful and failure case. |
| List Of Reason Header | OC | This parameter contains the list of SIP reason headers included in BYE or CANCEL method terminating the service,  Reliability of this information is not guaranteed if the SIP or CANCEL is originated outside of the trust domain which is determined by the Operator on a "per parameter basis". |
| ISUP Cause | OC | When session is released via ISUP, this IE indicates the reason the call was released. |
| Trunk Group ID Incoming/Outgoing | OM | Contains the outgoing trunk group ID for an outgoing session/call or the incoming trunk group ID for an incoming session/call. |
| Bearer Service | OM | Holds the used bearer service for the PSTN leg. |
| Access Network Information | OC | This field contains the content of one SIP P-header "P-Access-Network-Info" available in the IMS Node when charging session starts, if available. |
| Additional Access Network Information | OC | This field contains the content of an additional SIP P-header "P-Access-Network-Info", available in the IMS Node as additional location when charging session starts, if available. |
| Cellular Network Information | OC | This field contains the content of one SIP "Cellular-Network-Info" header, when the UE supporting one or more cellular radio access technologies but using a non-cellular IP-CAN, such as untrusted WLAN access, provides this header field to relay information to its service provider about the radio cell identity of the cellular radio access network on which the UE most recently camped. |
| List of Access Network Info Change | OC | This field is a list of grouped field describing the subsequent SIP P-header "P-Access-Network-Info" changes. |
| Access Network Information | OC | This field holds the content of the SIP P-header "P-Access-Network-Info", when changed from the previous one. |
| Additional Access Network Information | OC | This field holds the content of additional SIP P-header "P-Access-Network-Info" when changed from the previous one, if available. |
| Cellular Network Information | OC | This field contains the content of one SIP "Cellular-Network-Info" header, when the UE supporting one or more cellular radio access technologies but using a non-cellular IP-CAN, such as untrusted WLAN access, provides this header field to relay information to its service provider about the radio cell identity of the cellular radio access network on which the UE most recently camped. This field is applicable when changed from the previous one, if available. |
| Access Change Time | OC | This field contains the time at which the changed user location information was acquired. |
| Service Context Id | OM | Holds the context information to which the CDR belongs. The information is obtained from the Operation Token of the Charging Data Request message. |
| Real Time Tariff Information | Oc | This field holds the tariff/add-on charge received. |
| From Address | OM | Contains the information from the SIP From header. |
| ACR Interim Time Stamp | OC | This field contains the event time stamp carried in the latest ACR[Interim] CDF receives. It is Present only in session related charging. |
| Record Extensions | OC | A set of operator/manufacturer specific extensions to the record, conditioned upon existence of an extension. |

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| **Fifth change** |

6.1.3.9 SIP AS CDR content

**Table 6.1.3.9.1: Charging data of AS CDR**

| Field | Category | Description |
| --- | --- | --- |
| Record Type | M | Identifies the type of record. The parameter is derived from the Node functionality parameter. |
| Retransmission | OC | This parameter, when present, indicates that information from retransmitted Charging Data Requests has been used in this CDR |
| SIP Method | OC | Specifies the SIP-method for which the CDR is generated. Only available in session unrelated cases. |
| Event | OC | This field identifies the SIP event package to which the SIP request is referred. |
| Expires Information | OC | This field indicates the validity time of either the SIP message or its content, depending on the SIP method. |
| Role of node | OM | This field indicates whether the AS is serving the Originating Terminating or Forwarding party. |
| Node Address | OM | This item holds the address of the node providing the information for the CDR. This may either be the IP address or the FQDN of the IMS node generating the accounting data. |
| Session ID | OM | The Session identification. For a SIP session the Session-ID contains the SIP Call ID as defined in the Session Initiation Protocol RFC 3261 [404]. When the AS acts as B2BUA, the incoming session is identified, except for the "OneChargingSession" option, where it contains either the incoming or outgoing dialog SIP Call Id involved during IMS session setup. |
| Outgoing Session ID | OC | When the AS acts as B2BUA, the outgoing session is identified by the Outgoing Session ID which contains the SIP Call ID (as defined in the RFC 3261 [404]). This field is not used for the "OneChargingSession" option |
| Session Priority | OC | The field contains the priority of the session. |
| List Of Calling Party Address | OM | The address or addresses (Public User ID or Public Service ID) of the party requesting a service or initiating a session. In the case of no P-Asserted-Identify is known, this list shall include a one item with the value "unknown". |
| Called Party Address | OM | For SIP transactions, except for registration, this field holds the address of the party (Public User ID or Public Service ID) to whom the SIP transaction is posted.  For registration transactions, this field holds the Public User ID under registration. |
| Number Portability routing information | OC | This field includes information on number portability after DNS/ENUM request from S-CSCF in the calling user's home network. |
| Carrier Select routing information | OC | This field includes information on carrier select after DNS/ENUM request from S-CSCF in the calling user's home network. |
| Alternate Charged Party Address | OC | The address of an alternate party that is identified by the AS at session initiation, and is charged in place of the calling party. |
| List of Requested Party Address | OC | This field is a list of Requested Party Address.  This field is only present if different from the Called Party Address parameter. |
| List of Subscription Id | OM | Holds the public user identities of the served user |
| List of Called Asserted Identity | OC | The address or addresses of the final asserted identities. Present if the final asserted identities are available in the SIP 2xx response. |
| List of Called Identity Changes | OC | List of terminating identity address changes and associated timestamps. |
| Called Identity Change Time Stamp | OC | Timestamp of SIP UPDATE or SIP RE-INVITE with changed terminating identity information. |
| Called Identity | OC | Changed terminating identity information received in a SIP UPDATE or SIP RE-INVITE. |
| Service Request Time Stamp | OM | This field contains the time stamp which indicates the time at which the service was requested. This parameter corresponds to SIP Request Timestamp. Present with Charging Data Request [Start] and Charging Data Request [Event]. |
| Service Request Time Stamp Fraction | OM | This parameter contains the milliseconds fraction in relation to the Service Request Time Stamp. |
| Service Delivery Start Time Stamp | OM | This field holds the time stamp reflecting either: successful session set-up, a delivery unrelated service, an unsuccessful session set-up and an unsuccessful session unrelated request. This parameter corresponds to SIP Response Timestamp. Present with Charging Data Request [Start] and Charging Data Request [Event]. |
| Service Delivery Start Time Stamp Fraction | OM | This parameter contains the milliseconds fraction in relation to the Service Delivery Start Time Stamp. |
| Service Delivery End Time Stamp | OC | This field records the time at which the service delivery was terminated. It is Present only in SIP session related case. This parameter corresponds to SIP Request Timestamp. Present with Charging Data Request [Stop]. |
| Service Delivery End Time Stamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the Service Delivery End Time Stamp. |
| Record Opening Time | OC | A time stamp reflecting the time the CDF opened this record. Present only in SIP session related case. |
| Record Closure Time | OM | A Time stamp reflecting the time the CDF closed the record. |
| Inter Operator Identifiers | OC | Holds the identification of the home network (originating and terminating) if exchanged via SIP signalling, as recorded in the *P-Charging-Vector header.* |
| Originating IOI | OC | This parameter corresponds to Orig-IOI header of the P-Charging-Vector defined in TS 24.229 [204]. |
| Terminating IOI | OC | This parameter corresponds to Term-IOI header of the P-Charging-Vector defined in TS 24.229 [204]. |
| Transit IOI List | Oc | This parameter corresponds to Transit-IOI List of the P-Charging-Vector defined in TS 24.229 [204] . This field may occur several times in one CDR. Each occurrence represents transit IOI values received from the path inbound to or outbound from the S-CSCF. |
| Local Record Sequence Number | OM | This field includes a unique record number created by this node. The number is allocated sequentially for each partial CDR (or whole CDR) including all CDR types. The number is unique within the CDF. |
| Record Sequence Number | OC | This field contains a running sequence number employed to link the partial records generated by the CDF for a particular session. |
| Cause For Record Closing | OM | This field contains a reason for the close of the CDR. |
| Incomplete CDR Indication | OC | This field provides additional diagnostics when the CDF detects missing Charging Data Requests. |
| IMS Charging Identifier | OM | This parameter holds the IMS charging identifier (ICID) as generated by the IMS node for the SIP session. |
| Related IMS Charging Identifier | OC | This field contains the related IMS Charging Identifier in case of access transfer. |
| Related IMS Charging Identifier Generation Node | OC | This parameter holds the identifier of the server that generated the Related IMS charging identifier. |
| List of Early SDP Media Components | OC | This is a grouped field which may occur several times in one CDR.  This field shall not be present if no media components are set to active before the final SIP session answer to the initial SIP Invite is received.  This field can be present in either session or event CDRs. |
| SDP Session Description | OC | Holds the Session portion of SDP data exchanged in the above mentioned scenario, if available. |
| SDP Type | OM | This parameter indicates if the SDP media component is an SDP offer or SDP answer. |
| SDP Offer Timestamp | OM | This parameter contains the time of the SIP Request which conveys the SDP offer. |
| SDP Answer Timestamp | OM | This parameter contains the time of the response to the SIP Request which conveys the SDP answer. |
| SDP Media Components | OM | This is a grouped field comprising several sub-fields associated with one media component. Since several media components may exist for a session in parallel these sub-fields may occur several times. |
| SDP Media Name | OM | This field holds the name of the media as available in the SDP data. |
| SDP Media Description | OM | This field holds the attributes of the media as available in the SDP data. |
| Access Correlation ID | OC | This parameter holds the charging identifier from the access network, consisting of either GPRS charging ID (GCID) which is generated by the GGSN for a GPRS PDP context, Charging Id which is generated by P-GW for IP-CAN bearer or the Access Network Charging Identifier Value which is generated by another type of access network.  It is present only if received from the access network when PCC architecture is implemented. |
| Media Initiator flag | OC | This field indicates if the called party has requested the session modification and it is present only if the initiator was the called party. |
| List of SDP Media Components | OC | This is a grouped field which may occur several times in one CDR.  The field is present only in a SIP session related case.  When the AS acts as B2BUA and "OneChargingSession" option applies, only SDP media components received by the AS are included, i.e. those generated by the AS are not included. |
| SDP Session Description | OC | Holds the Session portion of the SDP data exchanged between the User Agents if available in the SIP transaction. |
| SDP Type | OM | This parameter indicates if the SDP media component is an SDP offer or SDP answer. |
| SIP Request Timestamp | OC | This parameter contains the time of the SIP Request (usually a SIP (RE-)INVITE). This parameter corresponds to SIP Request Timestamp in Charging Data Request [Interim]. |
| SIP Response Timestamp | OC | This parameter contains appropriately the time of SIP 200 OK acknowledging an SIP INVITE or of SIP ACK including an SDP answer. This parameter corresponds to SIP Response Timestamp in Charging Data Request [Interim]. |
| SIP Request Timestamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the SIP Request Timestamp. |
| SIP Response Timestamp Fraction | OC | This parameter contains appropriately the time of SIP 200 OK acknowledging an SIP INVITE or of SIP ACK including an SDP answer. This parameter corresponds to SIP Response Timestamp in Charging Data Request [Interim]. |
| SDP Media Components | OM | This is a grouped field comprising several sub-fields associated with one media component. Since several media components may exist for a session in parallel these sub-fields may occur several times. |
| SDP Media Name | OM | This field holds the name of the media as available in the SDP data. |
| SDP Media Description | OM | This field holds the attributes of the media as available in the SDP data. |
| Access Correlation ID | OC | This parameter holds the charging identifier from the access network, consisting of either GPRS charging ID (GCID) which is generated by the GGSN for a GPRS PDP context, Charging Id which is generated by P-GW for IP-CAN bearer or the Access Network Charging Identifier Value which is generated by another type of access network.  It is present only if received from the access network when PCC architecture is implemented. |
| Media Initiator flag | OC | This field indicates if the called party has requested the session modification and it is present only if the initiator was the called party. |
| GGSN Address | OC | This parameter holds the control plane IP address of the GGSN that handles one or more media component(s) of a IMS session. |
| Service Reason Return Code | OM | This parameter provides the returned SIP status code for the service request for the successful and failure case, |
| List Of Reason Header | OC | This parameter contains the list of SIP reason headers included in BYE or CANCEL method terminating the service,  Reliability of this information is not guaranteed if the SIP or CANCEL is originated outside of the trust domain which is determined by the Operator on a "per parameter basis". |
| Service Specific Info | OC | This is a grouped field that contains service specific data if and as provided by an AS. It may occur several times in one CDR. |
| Service Specific Data | OM | This sub-field of Service Specific Data holds the value of the Service Specific Data. |
| Service Specific Type | OM | This sub-field of Service Specific Data holds the type of the Service Specific Data. |
| List of Message Bodies | OC | This grouped field comprising several sub-fields describing the data that may be conveyed end-to-end in the body of a SIP message. Since several message bodies may be exchanged via SIP-signalling, this grouped field may occur several times. |
| Content-Type | OM | This sub-field of Message Bodies holds the MIME type of the message body, Examples are: application/zip, image/gif, audio/mpeg, etc. |
| Content-Disposition | OC | This sub-field of Message Bodies holds the content disposition of the message body inside the SIP signalling, Content-disposition header field equal to "render", indicates that "the body part should be displayed or otherwise rendered to the user". Content disposition values are : session, render, inline, icon, alert, attachment, etc. |
| Content-Length | OM | This sub-field of Message Bodies holds the size of the data of a message body in bytes. |
| Originator | OC | This sub-field of the "List of Message Bodies" indicates the originating party of the message body. |
| Access Network Information | OC | This field contains the content of the SIP P-header "P-Access-Network-Info" available in the IMS Node when charging session starts, if available. |
| Additional Access Network Information | OC | This field contains the content of an additional SIP P-header "P-Access-Network-Info", available in the IMS Node as additional location when charging session starts, if available. |
| Cellular Network Information | OC | This field contains the content of one SIP "Cellular-Network-Info" header, when the UE supporting one or more cellular radio access technologies but using a non-cellular IP-CAN, such as untrusted WLAN access, provides this header field to relay information to its service provider about the radio cell identity of the cellular radio access network on which the UE most recently camped. |
| List of Access Network Info Change | OC | This field is a list of grouped field describing the subsequent SIP P-header "P-Access-Network-Info" and "Cellular-Network-Info" changes. |
| Access Network Information | OC | This field holds the content of the SIP P-header "P-Access-Network-Info", when changed from the previous one. |
| Additional Access Network Information | OC | This field holds the content of additional SIP P-header "P-Access-Network-Info" when changed from the previous one, if available. |
| Cellular Network Information | OC | This field contains the content of one SIP "Cellular-Network-Info" header, when the UE supporting one or more cellular radio access technologies but using a non-cellular IP-CAN, such as untrusted WLAN access, provides this header field to relay information to its service provider about the radio cell identity of the cellular radio access network on which the UE most recently camped. This field is applicable when changed from the previous one, if available. |
| Access Change Time | OC | This field contains the time at which the changed user location information was acquired. |
| VLR Number | OC | This field holds VLRNumber of User-Data AVP in User-Data-Answer (UDA) command defined in TS 29.328 [215] if available. |
| MSC Address | OC | This field holds MSCNumber of User-Data AVP in User-Data-Answer (UDA) command defined in TS 29.328 [215] if available. |
| List of Access Transfer Information | OC | This field is a list of grouped field describing the subsequent session transfers.  Each other occurrence comprises sub-fields describing the session transfer performed. |
| Access Transfer Type | OC | This field contains indication about the access transfer performed. This field is present only when transfer occurred. |
| Inter-UE Transfer | OC | This field indicates that an inter-UE access transfer has been performed. This field is present only when transfer occurred. |
| Access Network Information | OC | This field holds the content of one SIP P-header "P-Access-Network-Info" from the SIP INVITE requesting the transfer, if available |
| Additional Access Network Information | OC | This field contains the content of an additional SIP P-header "P-Access-Network-Info" from the SIP INVITE requesting the transfer, if available. |
| Cellular Network Information | OC | This field contains the content of one SIP "Cellular-Network-Info" header, when the UE supporting one or more cellular radio access technologies but using a non-cellular IP-CAN, such as untrusted WLAN access, provides this header field to relay information to its service provider about the radio cell identity of the cellular radio access network on which the UE most recently camped. |
| Subscriber Equipment Number | OC | This field contains the identification of the mobile device ( e.g. IMEI) that the subscriber is using following successful inter-UE transfer. |
| Instance Id | OC | This field uniquely identifies the device (fixed or mobile) of the served user following successful inter-UE transfer. |
| Related IMS Charging Identifier | OC | This field contains the related IMS Charging Identifier in case of access transfer. |
| Related IMS Charging Identifier Generation Node | OC | This parameter holds the identifier of the server that generated the Related IMS charging identifier in case of access transfer. |
| Access Transfer Time | OC | This field contains the time stamp, which indicates the time at which the session transfer has been performed. |
| Service Context Id | OM | Holds the context information to which the CDR belongs. The information is obtained from the Operation Token of the Charging Data Request message. |
| IMS Communication Service ID | OC | This field contains the IMS communication service identifier if received in the P-Asserted-Service header in the SIP request. |
| Online Charging Flag | OC | This field indicates the Online Charging Request was sent based on the provided ECF address from the SIP P-header "P-Charging-Function-Addresses".  NOTE: No proof that online charging action has been taken |
| Real Time Tariff Information | Oc | This field holds the tariff/add-on charge received. |
| Initial IMS Charging Identifier | Oc | This parameter holds the Initial IMS charging identifier (ICID) as generated by the IMS node for the initial SIP session created for IMS service continuity.  This field is not used for the "OneChargingSession" option. |
| User Location Info | OC | This field indicates contains the network provided location information for 3GPP accesses available in the IMS Node when charging session starts, if available. |
| MS Time Zone | OC | This field indicates the offset between universal time and local time in steps of 15 minutes of where the MS currently resides. |
| NNI Information | OC | This grouped field holds information about the NNI used for interconnection and roaming on the loopback routing path. It is present only if RAVEL “VPLMN routing” is applied. |
| NNI Type | OC | This field indicates usage of the roaming NNI for loopback routing, The loopback indication was received by the AS. |
| From Address | OM | Contains the information from the SIP From header. |
| IMS Visited Network Identifier | OC | Contains the information from the SIP P-Visited-Network-ID header received in a REGISTER request. |
| Subscriber Equipment Number | OC | This field contains the identification of the mobile device ( e.g. IMEI) that the subscriber is using. |
| Instance Id | OC | This field uniquely identifies the device (fixed or mobile) of the served user. |
| TAD Identifier | OC | This field indicates the type of access network (CS or PS) through which the session shall be terminated. |
| ACR Interim Time Stamp | OC | This field contains the event time stamp carried in the latest ACR[Interim] CDF receives. It is Present only in session related charging. |
| Record Extensions | OC | A set of operator/manufacturer specific extensions to the record, conditioned upon existence of an extension. |

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| **Sixth change** |

6.1.3.10 IBCF CDR content

**Table 6.1.3.10.1: Charging data of IBCF CDR**

| Field | Category | Description |
| --- | --- | --- |
| Record Type | M | Identifies the type of record. The parameter is derived from the Node functionality parameter. |
| Retransmission | OC | This parameter, when present, indicates that information from retransmitted Charging Data Requests has been used in this CDR. |
| SIP Method | OC | Specifies the SIP-method for which the CDR is generated. Only available in session unrelated cases. |
| Event | OC | This field identifies the SIP event package to which the SIP request is referred. |
| Expires Information | OC | This field indicates the validity time of either the SIP message or its content, depending on the SIP method. |
| Role of node | OM | This field indicates whether the IBCF is serving the Originating or the Terminating party. |
| Node Address | OM | This item holds the address of the node providing the information for the CDR. This may either be the IP address or the FQDN of the IMS node generating the accounting data. |
| Session ID | OM | The Session identification. For a SIP session the Session-ID contains the SIP Call ID as defined in the Session Initiation Protocol RFC 3261 [404]. |
| Session Priority | OC | The field contains the priority of the session. |
| List Of Calling Party Address | OM | The address or addresses (Public User ID or Public Service ID) of the party requesting a service or initiating a session. In the case of no P-Asserted-Identify is known, this list shall include a one item with the value "unknown". |
| Called Party Address | OM | In the context of an end-to-end SIP transaction this field holds the address of the party (Public User ID) to whom the SIP transaction is posted. |
| Service Request Time Stamp | OM | This field contains the time stamp which indicates the time at which the service was requested. This parameter corresponds to SIP Request Timestamp. Present with Charging Data Request [Start] and Charging Data Request [Event]. |
| Service Request Time Stamp Fraction | OM | This parameter contains the milliseconds fraction in relation to the Service Request Time Stamp. |
| Service Delivery Start Time Stamp | OM | This field holds the time stamp reflecting either: successful session set-up, a delivery unrelated service, an unsuccessful session set-up and an unsuccessful session unrelated request. This parameter corresponds to SIP Response Timestamp. Present with Charging Data Request [Start] and Charging Data Request [Event]. |
| Service Delivery Start Time Stamp Fraction | OM | This parameter contains the milliseconds fraction in relation to the Service Delivery Start Time Stamp. |
| Service Delivery End Time Stamp | OC | This field records the time at which the service delivery was terminated. It is Present only in SIP session related case. This parameter corresponds to SIP Request Timestamp. Present with Charging Data Request [Stop]. |
| Service Delivery End Time Stamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the Service Delivery End Time Stamp. |
| Record Opening Time | OC | A time stamp reflecting the time the CDF opened this record. Present only in SIP session related case. |
| Record Closure Time | OM | A Time stamp reflecting the time the CDF closed the record |
| Inter Operator Identifiers | OC | Holds the identification of the home network (originating and terminating) if exchanged via SIP signalling, as recorded in the *P-Charging-Vector header.* |
| Originating IOI | OC | This parameter corresponds to Orig-IOI header of the P-Charging-Vector defined in TS 24.229 [204]. |
| Terminating IOI | OC | This parameter corresponds to Term-IOI header of the P-Charging-Vector defined in TS 24.229 [204]. |
| Transit IOI List | Oc | This parameter corresponds to Transit-IOI List of the P-Charging-Vector defined in TS 24.229 [204]. |
| Local Record Sequence Number | OM | This field includes a unique record number created by this node. The number is allocated sequentially for each partial CDR (or whole CDR) including all CDR types. The number is unique within the CDF. |
| Record Sequence Number | OC | This field contains a running sequence number employed to link the partial records generated by the CDF for a particular session. |
| Cause For Record Closing | OM | This field contains a reason for the close of the CDR. |
| Incomplete CDR Indication | OC | This field provides additional diagnostics when the CDF detects missing Charging Data Requests. |
| IMS Charging Identifier | OM | This parameter holds the IMS charging identifier (ICID) as generated by the IMS node for the SIP session. |
| List of Early SDP Media Components | OC | This is a grouped field which may occur several times in one CDR.  This field shall not be present if no media components are set to active before the final SIP session answer to the initial SIP Invite is received.  This field can be present in either session or event CDRs. |
| SDP Session Description | OC | Holds the Session portion of SDP data exchanged in the above mentioned scenario, if available. |
| SDP Type | OM | This parameter indicates if the SDP media component is an SDP offer or SDP answer. |
| SDP Offer Timestamp | OM | This parameter contains the time of the SIP Request which conveys the SDP offer. |
| SDP Answer Timestamp | OM | This parameter contains the time of the response to the SIP Request which conveys the SDP answer. |
| SDP Media Components | OM | This is a grouped field comprising several sub-fields associated with one media component. Since several media components may exist for a session in parallel these sub-fields may occur several times. |
| SDP Media Name | OM | This field holds the name of the media as available in the SDP data. |
| SDP Media Description | OM | This field holds the attributes of the media as available in the SDP data. |
| Media Initiator flag | OC | This field indicates if the called party has requested the session modification and it is present only if the initiator was the called party. |
| List of SDP Media Components | OC | This is a grouped field which may occur several times in one CDR.  The field is present only in a SIP session related case. |
| SDP Session Description | OC | Holds the Session portion of the SDP data exchanged between the User Agents if available in the SIP transaction. |
| SDP Type | OM | This parameter indicates if the SDP media component is an SDP offer or SDP answer. |
| SIP Request Timestamp | OC | This parameter contains the time of the SIP Request (usually a (RE-)INVITE). This parameter corresponds to SIP Request Timestamp in Charging Data Request [Interim]. |
| SIP Response Timestamp | OC | This parameter contains appropriately the time of SIP 200 OK acknowledging an SIP INVITE or of SIP ACK including an SDP answer. This parameter corresponds to SIP Response Timestamp in Charging Data Request [Interim]. |
| SIP Request Timestamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the SIP Request Timestamp. |
| SIP Response Timestamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the SIP Response Timestamp. |
| SDP Media Components | OM | This is a grouped field comprising several sub-fields associated with one media component. Since several media components may exist for a session in parallel these sub-fields may occur several times. |
| SDP Media Name | OM | This field holds the name of the media as available in the SDP data. |
| SDP Media Description | OM | This field holds the attributes of the media as available in the SDP data. |
| Local GW Inserted Indication | OC | This field indicates whether the local TrGW is inserted or not, for the media component included in SDP answer, if available. |
| IP Realm Default Indication | OC | This field indicates whether the User Plane IP realm associated to the media component included in SDP answer, is the Default IP realm or not, if available. |
| Transcoder Inserted Indication | OC | This field indicates whether a transcoder is inserted or not, for the media component included in the SDP answer, if available. |
| Media Initiator flag | OC | This field indicates if the called party has requested the session modification and it is present only if the initiator was the called party. |
| Service Reason Return Code | OM | This parameter provides the returned SIP status code for the service request for the successful and failure case, |
| List Of Reason Header | OC | This parameter contains the list of SIP reason headers included in BYE or CANCEL method terminating the service,  Reliability of this information is not guaranteed if the SIP or CANCEL is originated outside of the trust domain which is determined by the Operator on a "per parameter basis". |
| List of Message Bodies | OC | This grouped field comprising several sub-fields describing the data that may be conveyed end-to-end in the body of a SIP message. Since several message bodies may be exchanged via SIP-signalling, this grouped field may occur several times. |
| Content-Type | OM | This sub-field of Message Bodies holds the MIME type of the message body, Examples are: application/zip, image/gif, audio/mpeg, etc. |
| Content-Disposition | OC | This sub-field of Message Bodies holds the content disposition of the message body inside the SIP signalling, Content-disposition header field equal to "render", indicates that "the body part should be displayed or otherwise rendered to the user". Content disposition values are : session, render, inline, icon, alert, attachment, etc. |
| Content-Length | OM | This sub-field of Message Bodies holds the size of the data of a message body in bytes. |
| Originator | OC | This sub-field of the "List of Message Bodies" indicates the originating party of the message body. |
| Access Network Information | OC | This field contains the content of one SIP P-header "P-Access-Network-Info" available in the IMS Node when charging session starts, if available. |
| Additional Access Network Information | OC | This field contains the content of an additional SIP P-header "P-Access-Network-Info", available in the IMS Node as additional location when charging session starts, if available. |
| Cellular Network Information | OC | This field contains the content of one SIP "Cellular-Network-Info" header, when the UE supporting one or more cellular radio access technologies but using a non-cellular IP-CAN, such as untrusted WLAN access, provides this header field to relay information to its service provider about the radio cell identity of the cellular radio access network on which the UE most recently camped. This field is applicable when changed from the previous one, if available. |
| List of Access Network Info Change | OC | This field is a list of grouped field describing the subsequent SIP P-header "P-Access-Network-Info" and "Cellular-Network-Info" changes. |
| Access Network Information | OC | This field holds the content of the SIP P-header "P-Access-Network-Info", when changed from the previous one. |
| Additional Access Network Information | OC | This field holds the content of additional SIP P-header "P-Access-Network-Info" when changed from the previous one, if available. |
| Cellular Network Information | OC | This field contains the content of one SIP "Cellular-Network-Info" header, when the UE supporting one or more cellular radio access technologies but using a non-cellular IP-CAN, such as untrusted WLAN access, provides this header field to relay information to its service provider about the radio cell identity of the cellular radio access network on which the UE most recently camped. This field is applicable when changed from the previous one, if available. |
| Access Change Time | OC | This field contains the time at which the changed user location information was acquired. |
| IMS Communication Service ID | OC | This field contains the identifier for the type of communication service the IMS is currently providing for the session if received in the P-Asserted-Service header in the SIP request when the IBCF is downstream from the S‑CSCF serving the Originating party or the topmost occurrence of the "+g.3gpp.icsi-ref" header field parameter of the Feature-Caps header in the SIP response when the IBCF is upstream from the S-CSCF serving the Originating party. |
| Service Context Id | OM | Holds the context information to which the CDR belongs. The information is obtained from the Operation Token of the Charging Data Request message. |
| Real Time Tariff Information | Oc | This field holds the tariff/add-on charge received. |
| User Location Info | OC | This field indicates contains the network provided location information for 3GPP accesses available in the IMS Node when charging session starts, if available. |
| MS Time Zone | OC | This field indicates the offset between universal time and local time in steps of 15 minutes of where the MS currently resides. |
| NNI Information | Oc | This grouped field comprising several sub-fields holds information about the NNI used for interconnection and roaming. This field may occur more than once in a CDR e.g. when routing capability in support of transit is collocated with the IBCF. |
| Session Direction | Oc | This field indicates whether the NNI is used for an inbound or outbound service request on the control plane in case of interconnection and roaming. |
| NNI Type | Oc | This field indicates whether the type of used NNI is non-roaming, roaming with loopback routing, or roaming without loopback routing. |
| Relationship Mode | Oc | This field indicates whether the other functional entity (contact point of the neighbouring network) is regarded as part of the same trust domain. |
| Neighbour Node Address | Oc | This field holds the control plane IP address of the neighbouring network contact point that handles the service request in case of interconnection and roaming. |
| From Address | OM | Contains the information from the SIP From header. |
| SIP Route header received in an INVITE request | OC | Contains the information in the topmost route header in a received initial SIP INVITE and non-session related SIP MESSAGE request. |
| ACR Interim Time Stamp | OC | This field contains the event time stamp carried in the latest ACR[Interim] CDF receives. It is Present only in session related charging. |
| Record Extensions | OC | A set of operator/manufacturer specific extensions to the record, conditioned upon existence of an extension. |

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| **Seventh change** |

6.1.3.11 E-CSCF CDR content

**Table 6.1.3.11.1: Charging data of E-CSCF CDR**

| Field | Category | Description |
| --- | --- | --- |
| Record Type | M | Identifies the type of record. The parameter is derived from the Node functionality parameter. |
| Retransmission | OC | This parameter, when present, indicates that information from retransmitted Charging Data Requests has been used in this CDR |
| SIP Method | OC | Specifies the SIP-method for which the CDR is generated. Only available in session unrelated cases. |
| Event | OC | This field identifies the SIP event package to which the SIP request is referred. |
| Expires Information | OC | This field indicates the validity time of either the SIP message or its content, depending on the SIP method. |
| Role of node | OM | This field indicates whether the E-CSCF is serving the Originating or the Terminating party. |
| Node Address | OM | This item holds the address of the node providing the information for the CDR. This may either be the IP address or the FQDN of the IMS node generating the accounting data. |
| Session ID | OM | The Session identification. For a SIP session the Session-ID contains the SIP Call ID as defined in the Session Initiation Protocol RFC 3261 [404]. |
| Session Priority | OC | The field contains the priority of the session. |
| List Of Calling Party Address | OM | The address or addresses (Public User ID or Public Service ID) of the party requesting a service or initiating a session. In case no P-Asserted-Identity is known, this list shall include one item with the value "unknown". |
| Called Party Address | OM | For SIP transactions, this field holds the address of the party (Public User ID or Public Service ID) to whom the SIP transaction is posted. It could be in the format of a SIP URI, a Tel URI or a URN |
| Requested Party Address | OC | For SIP transactions this field holds the address of the party (Public User ID or Public Service ID) to whom the SIP transaction was originally posted. It could be in the format of a SIP URI, a TEL URI or a URN.  This field is only present if different from the Called Party Address parameter. |
| List of Called Asserted Identity | OC | The address or addresses of the final asserted identities. Present if the final asserted identities are available in the SIP 2xx RESPONSE. |
| List of Called Identity Changes | OC | List of terminating identity address changes and associated timestamps. |
| Called Identity Change Time Stamp | OC | Timestamp of SIP UPDATE or SIP RE-INVITE with changed terminating identity information. |
| Called Identity | OC | Changed terminating identity information received in a SIP UPDATE or SIP RE-INVITE. |
| List of Subscription Id | OC | Holds the public user identities of the served user |
| Service Request Time Stamp | OM | This field contains the time stamp, which indicates the time at which the service was requested. |
| Service Request Time Stamp Fraction | OM | This parameter contains the milliseconds fraction in relation to the Service Request Time Stamp. |
| Service Delivery Start Time Stamp | OM | This field holds the time stamp reflecting either: successful session set-up, a delivery unrelated service, an unsuccessful session set-up and an unsuccessful session unrelated request. |
| Service Delivery Start Time Stamp Fraction | OM | This parameter contains the milliseconds fraction in relation to the Service Delivery Start Time Stamp. |
| Service Delivery End Time Stamp | OC | This field records the time at which the service delivery was terminated. It is Present only in SIP session related case. |
| Service Delivery End Time Stamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the Service Delivery End Time Stamp. |
| Record Opening Time | OC | A time stamp reflecting the time the CDF opened this record. Present only in SIP session related case. |
| Record Closure Time | OM | A Time stamp reflecting the time the CDF closed the record. |
| Application Servers Information | OC | This is a grouped CDR field containing the fields: "Application Server Involved" and "Application Provided Called Parties". |
| Application Servers Involved | OC | Holds the ASs (if any) identified by the SIP URIs. |
| Application Provided Called Parties | OC | Holds a list of the Called party address(es), if the address(es) are determined by an AS (SIP URI, E.164…). |
| List of Inter Operator Identifiers | OC | Holds the identification of the home network (originating and terminating) if exchanged via SIP signalling, as recorded in the P-Charging-Vector header. This grouped field may occur several times in one CDR. |
| Originating IOI | OC | This parameter corresponds to Orig-IOI header of the P-Charging-Vector defined in TS 24.229 [204]. |
| Terminating IOI | OC | This parameter corresponds to Term-IOI header of the P-Charging-Vector defined in TS 24.229 [204]. |
| Local Record Sequence Number | OM | This field includes a unique record number created by E-CSCF. The number is allocated sequentially for each partial CDR (or whole CDR) including all CDR types. The number is unique within the CDF. |
| Record Sequence Number | OC | This field contains a running sequence number employed to link the partial records generated by the CDF for a particular session. |
| Cause For Record Closing | OM | This field contains a reason for the close of the CDR. |
| Incomplete CDR Indication | OC | This field provides additional diagnostics when the CDF detects missing Charging Data Requests. |
| IMS Charging Identifier | OM | This parameter holds the IMS charging identifier (ICID) as generated by the IMS node for the SIP session. |
| List of Early SDP Media Components | OC | This is a grouped field which may occur several times in one CDR.  This field shall not be present if no media components are set to active before the final SIP session answer to the initial SIP Invite is received.  This field can be present in either session or event CDRs. |
| SDP Session Description | OC | Holds the Session portion of SDP data exchanged in the above mentioned scenario, if available. |
| SDP Type | OM | This parameter indicates if the SDP media component is an SDP offer or SDP answer. |
| SDP Offer Timestamp | OM | This parameter contains the time of the SIP Request which conveys the SDP offer. |
| SDP Answer Timestamp | OM | This parameter contains the time of the response to the SIP Request which conveys the SDP answer. |
| SDP Media Components | OM | This is a grouped field comprising several sub-fields associated with one media component. Since several media components may exist for a session in parallel these sub-fields may occur several times. |
| SDP Media Name | OM | This field holds the name of the media as available in the SDP data. |
| SDP Media Description | OM | This field holds the attributes of the media as available in the SDP data. |
| Access Correlation ID | OC | This parameter holds the charging identifier from the access network, consisting of either GPRS charging ID (GCID) which is generated by the GGSN for a GPRS PDP context, Charging Id which is generated by P-GW for IP-CAN bearer or the Access Network Charging Identifier Value which is generated by another type of access network.  It is present only if received from the access network when PCC architecture is implemented. |
| Media Initiator flag | OC | This field indicates if the called party has requested the session modification and it is present only if the initiator was the called party. |
| List of SDP Media Components | OC | This is a grouped field which may occur several times in one CDR.  The field is present only in a SIP session related case. |
| SDP Session Description | OC | Holds the Session portion of the SDP data exchanged between the User Agents if available in the SIP transaction. |
| SDP Type | OM | This parameter indicates if the SDP media component is an SDP offer or SDP answer. |
| SIP Request Timestamp | OC | This parameter contains the time of the SIP Request (usually a (RE-)INVITE). |
| SIP Response Timestamp | OC | This parameter contains appropriately the time of SIP 200 OK acknowledging an SIP INVITE or of SIP ACK including an SDP answer. |
| SIP Request Timestamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the SIP Request Timestamp. |
| SIP Response Timestamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the SIP Response Timestamp. |
| SDP Media Components | OM | This is a grouped field comprising several sub-fields associated with one media component. Since several media components may exist for a session in parallel these sub-fields may occur several times. |
| SDP Media Name | OM | This field holds the name of the media as available in the SDP data. |
| SDP Media Description | OM | This field holds the attributes of the media as available in the SDP data. |
| Access Correlation ID | OC | This parameter holds the charging identifier from the access network, consisting of either GPRS charging ID (GCID) which is generated by the GGSN for a GPRS PDP context, Charging Id which is generated by P-GW for IP-CAN bearer or the Access Network Charging Identifier Value which is generated by another type of access network.  It is present only if received from the access network when PCC architecture is implemented. |
| Media Initiator flag | OC | This field indicates if the called party has requested the session modification and it is present only if the initiator was the called party. |
| GGSN Address | OC | This parameter holds the control plane IP address of the GGSN that handles one or more media component(s) of an IMS session. |
| Service Reason Return Code | OM | This parameter provides the returned SIP status code for the service request for the successful and failure case, |
| List Of Reason Header | OC | This parameter contains the list of SIP reason headers included in BYE or CANCEL method terminating the service,  Reliability of this information is not guaranteed if the SIP or CANCEL is originated outside of the trust domain which is determined by the Operator on a "per parameter basis". |
| List of Message Bodies | OC | This grouped field comprising several sub-fields describing the data that may be conveyed end-to-end in the body of a SIP message. Since several message bodies may be exchanged via SIP-signalling, this grouped field may occur several times. |
| Content-Type | OM | This sub-field of Message Bodies holds the MIME type of the message body, Examples are: application/zip, image/gif, audio/mpeg, etc. |
| Content-Disposition | OC | This sub-field of Message Bodies holds the content disposition of the message body inside the SIP signalling, Content-disposition header field equal to "render", indicates that "the body part should be displayed or otherwise rendered to the user". Content disposition values are: session, render, inline, icon, alert, attachment, etc. |
| Content-Length | OM | This sub-field of Message Bodies holds the size of the data of a message body in bytes. |
| Originator | OC | This sub-field of the "List of Message Bodies" indicates the originating party of the message body. |
| Access Network Information | OC | This field contains the content of one SIP P-header "P-Access-Network-Info" available in the IMS Node when charging session starts, if available. |
| Additional Access Network Information | OC | This field contains the content of additional SIP P-header "P-Access-Network-Info", available in the IMS Node as additional location when charging session starts, if available. |
| Cellular Network Information | OC | This field contains the content of one SIP "Cellular-Network-Info" header, when the UE supporting one or more cellular radio access technologies but using a non-cellular IP-CAN, such as untrusted WLAN access, provides this header field to relay information to its service provider about the radio cell identity of the cellular radio access network on which the UE most recently camped. |
| List of Access Network Info Change | OC | This field is a list of grouped field describing the subsequent SIP P-header "P-Access-Network-Info" and "Cellular-Network-Info" changes. |
| Access Network Information | OC | This field holds the content of the SIP P-header "P-Access-Network-Info", when changed from the previous one. |
| Cellular Network Information | OC | This field contains the content of one SIP "Cellular-Network-Info" header, when the UE supporting one or more cellular radio access technologies but using a non-cellular IP-CAN, such as untrusted WLAN access, provides this header field to relay information to its service provider about the radio cell identity of the cellular radio access network on which the UE most recently camped. This field is applicable when changed from the previous one, if available. |
| Additional Access Network Information | OC | This field holds the content of additional SIP P-header "P-Access-Network-Info" when changed from the previous one, if available. |
| Access Change Time | OC | This field contains the time at which the changed user location information was acquired. |
| Service Context Id | OM | Holds the context information to which the CDR belongs. The information is obtained from the Operation Token of the Charging Data Request message. |
| IMS Communication Service ID | OC | This field contains the IMS communication service identifier if received in the P-Asserted-Service header in the SIP request. |
| User Location Info | OC | This field contains the network provided location information for 3GPP accesses available in the IMS Node when charging session starts, if available. |
| MS Time Zone | OC | This field indicates the offset between universal time and local time in steps of 15 minutes of where the MS currently resides. |
| From Address | OM | Contains the information from the SIP From header. |
| ACR Interim Time Stamp | OC | This field contains the event time stamp carried in the latest ACR[Interim] CDF receives. It is Present only in session related charging. |
| Record Extensions | OC | A set of operator/manufacturer specific extensions to the record, conditioned upon existence of an extension. |

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| **Eighth change** |

6.1.3.12 TRF CDR content

**Table 6.1.3.12.1: Charging data of TRF CDR**

| Field | Category | Description |
| --- | --- | --- |
| Record Type | M | Identifies the type of record. The parameter is derived from the Node functionality parameter. |
| Retransmission | OC | This parameter, when present, indicates that information from retransmitted Charging Data Requests has been used in this CDR. |
| SIP Method | OC | Specifies the SIP-method for which the CDR is generated. Only available in session unrelated cases. |
| Event | OC | This field identifies the SIP event package to which the SIP request is referred. |
| Expires Information | OC | This field indicates the validity time of either the SIP message or its content, depending on the SIP method. |
| Role of node | OM | This field indicates whether the TRF is serving the Originating or the Terminating party. |
| Node Address | OM | This item holds the address of the node providing the information for the CDR. This may either be the IP address or the FQDN of the IMS node generating the accounting data. |
| Session ID | OM | The Session identification. For a SIP session the Session-ID contains the SIP Call ID as defined in the Session Initiation Protocol RFC 3261 [404]. |
| Session Priority | OC | The field contains the priority of the session. |
| List Of Calling Party Address | OM | The address or addresses (Public User ID or Public Service ID) of the party requesting a service or initiating a session. |
| Called Party Address | OM | In the context of an end-to-end SIP transaction this field holds the address of the party (Public User ID) to whom the SIP transaction is posted. |
| List of Called Asserted Identity | OC | The address or addresses of the final asserted identities. Present if the final asserted identities are available in the SIP 2xx response. |
| List of Called Identity Changes | OC | List of terminating identity address changes and associated timestamps. |
| Called Identity Change Time Stamp | OC | Timestamp of SIP UPDATE or SIP RE-INVITE with changed terminating identity information. |
| Called Identity | OC | Changed terminating identity information received in a SIP UPDATE or SIP RE-INVITE. |
| Requested Party Address | OC | For SIP transactions this field holds the address of the party (Public User ID or Public Service ID) to whom the SIP transaction was originally posted.  This field is only present if different from the Called Party Address parameter. |
| List of Subscription Id | OC | Holds the public user identities of the served user. |
| Number Portability routing information | OC | This field includes information on number portability after DNS/ENUM request from the TRF. |
| Carrier Select routing information | OC | This field includes information on carrier select after DNS/ENUM request from the TRF. |
| Service Request Time Stamp | OM | This field contains the time stamp which indicates the time at which the service was requested. This parameter corresponds to SIP Request Timestamp. Present with Charging Data Request [Start] and Charging Data Request [Event]. |
| Service Request Time Stamp Fraction | OM | This parameter contains the milliseconds fraction in relation to the Service Request Time Stamp. |
| Service Delivery Start Time Stamp | OM | This field holds the time stamp reflecting either: successful session set-up, a delivery unrelated service, an unsuccessful session set-up and an unsuccessful session unrelated request. This parameter corresponds to SIP Response Timestamp. Present with Charging Data Request [Start] and Charging Data Request [Event]. |
| Service Delivery Start Time Stamp Fraction | OM | This parameter contains the milliseconds fraction in relation to the Service Delivery Start Time Stamp. |
| Service Delivery End Time Stamp | OC | This field records the time at which the service delivery was terminated. It is Present only in SIP session related case. This parameter corresponds to SIP Request Timestamp. Present with Charging Data Request [Stop]. |
| Service Delivery End Time Stamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the Service Delivery End Time Stamp. |
| Record Opening Time | OC | A time stamp reflecting the time the CDF opened this record. Present only in SIP session related case. |
| Record Closure Time | OM | A Time stamp reflecting the time the CDF closed the record |
| Application Servers Information | OC | This is a grouped CDR field containing the fields: “Application Server Involved” and “Application Provided Called Parties”. |
| Application Servers Involved | OC | Holds the ASs (if any) identified by the SIP URIs. |
| Application Provided Called Parties | OC | Holds a list of the Called party address(es), if the address(es) are determined by an AS (SIP URI, E.164…). |
| Inter Operator Identifiers | OC | Holds the identification of the home network (originating and terminating) if exchanged via SIP signalling, as recorded in the *P-Charging-Vector header.* This grouped field may occur several times in one CDR. |
| Originating IOI | OC | This parameter corresponds to Orig-IOI header of the P-Charging-Vector defined in TS 24.229 [204]. |
| Terminating IOI | OC | This parameter corresponds to Term-IOI header of the P-Charging-Vector defined in TS 24.229 [204]. |
| Transit IOI List | Oc | This parameter corresponds to Transit-IOI List of the P-Charging-Vector defined in TS 24.229 [204]. This field may occur several times in one CDR. Each occurrence represents transit IOI values received from the path inbound to or outbound from the TRF. |
| Local Record Sequence Number | OM | This field includes a unique record number created by this node. The number is allocated sequentially for each partial CDR (or whole CDR) including all CDR types. The number is unique within the CDF. |
| Record Sequence Number | OC | This field contains a running sequence number employed to link the partial records generated by the CDF for a particular session. |
| Cause For Record Closing | OM | This field contains a reason for the close of the CDR. |
| Incomplete CDR Indication | OC | This field provides additional diagnostics when the CDF detects missing Charging Data Requests. |
| IMS Charging Identifier | OM | This parameter holds the IMS charging identifier (ICID) as generated by the IMS node for the SIP session. |
| List of Early SDP Media Components | OC | This is a grouped field which may occur several times in one CDR.  This field shall not be present if no media components are set to active before the final SIP session answer to the initial SIP Invite is received.  This field can be present in either session or event CDRs. |
| SDP Session Description | OC | Holds the Session portion of SDP data exchanged in the above mentioned scenario, if available. |
| SDP Type | OM | This parameter indicates if the SDP media component is an SDP offer or SDP answer. |
| SDP Offer Timestamp | OM | This parameter contains the time of the SIP Request which conveys the SDP offer. |
| SDP Answer Timestamp | OM | This parameter contains the time of the response to the SIP Request which conveys the SDP answer. |
| SDP Media Components | OM | This is a grouped field comprising several sub-fields associated with one media component. Since several media components may exist for a session in parallel these sub-fields may occur several times. |
| SDP Media Name | OM | This field holds the name of the media as available in the SDP data. |
| SDP Media Description | OM | This field holds the attributes of the media as available in the SDP data. |
| Media Initiator flag | OC | This field indicates if the called party has requested the session modification and it is present only if the initiator was the called party. |
| List of SDP Media Components | OC | This is a grouped field which may occur several times in one CDR.  The field is present only in a SIP session related case. |
| SDP Session Description | OC | Holds the Session portion of the SDP data exchanged between the User Agents if available in the SIP transaction. |
| SDP Type | OM | This parameter indicates if the SDP media component is an SDP offer or SDP answer. |
| SIP Request Timestamp | OC | This parameter contains the time of the SIP Request (usually a (RE-)INVITE). This parameter corresponds to SIP Request Timestamp in Charging Data Request [Interim]. |
| SIP Response Timestamp | OC | This parameter contains appropriately the time of SIP 200 OK acknowledging an SIP INVITE or of SIP ACK including an SDP answer. This parameter corresponds to SIP Response Timestamp in Charging Data Request [Interim]. |
| SIP Request Timestamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the SIP Request Timestamp. |
| SIP Response Timestamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the SIP Response Timestamp. |
| SDP Media Components | OM | This is a grouped field comprising several sub-fields associated with one media component. Since several media components may exist for a session in parallel these sub-fields may occur several times. |
| SDP Media Name | OM | This field holds the name of the media as available in the SDP data. |
| SDP Media Description | OM | This field holds the attributes of the media as available in the SDP data. |
| Media Initiator flag | OC | This field indicates if the called party has requested the session modification and it is present only if the initiator was the called party. |
| Service Reason Return Code | OM | This parameter provides the returned SIP status code for the service request for the successful and failure case, |
| List Of Reason Header | OC | This parameter contains the list of SIP reason headers included in BYE or CANCEL method terminating the service,  Reliability of this information is not guaranteed if the SIP or CANCEL is originated outside of the trust domain which is determined by the Operator on a “per parameter basis”. |
| List of Message Bodies | OC | This grouped field comprising several sub-fields describing the data that may be conveyed end-to-end in the body of a SIP message. Since several message bodies may be exchanged via SIP-signalling, this grouped field may occur several times. |
| Content-Type | OM | This sub-field of Message Bodies holds the MIME type of the message body, Examples are: application/zip, image/gif, audio/mpeg, etc. |
| Content-Disposition | OC | This sub-field of Message Bodies holds the content disposition of the message body inside the SIP signalling, Content-disposition header field equal to “render”, indicates that “the body part should be displayed or otherwise rendered to the user”. Content disposition values are : session, render, inline, icon, alert, attachment, etc. |
| Content-Length | OM | This sub-field of Message Bodies holds the size of the data of a message body in bytes. |
| Originator | OC | This sub-field of the "List of Message Bodies" indicates the originating party of the message body. |
| IMS Communication Service Id | OC | Contains the identifier for the type of communication service the IMS is currently providing for the session. |
| Service Context Id | OM | Holds the context information to which the CDR belongs. The information is obtained from the Operation Token of the Charging Data Request message. |
| User Location Info | OC | This field contains the network provided location information for 3GPP accesses, if available. |
| MS Time Zone | OC | This field indicates the offset between universal time and local time in steps of 15 minutes of where the MS currently resides. |
| NNI Information | Oc | This grouped field comprising several sub-fields holds information about the NNI used for interconnection and roaming. This field may occur more than once in a CDR e.g. when routing capability in support of transit is collocated with the TRF. |
| NNI Type | Oc | This field indicates whether the type of used NNI is non-roaming, roaming with loopback routing, or roaming without loopback routing. |
| SIP Route header received | OC | Contains the information in the topmost route header in a received initial SIP INVITE or non-session related SIP MESSAGE request. |
| ACR Interim Time Stamp | OC | This field contains the event time stamp carried in the latest ACR[Interim] CDF receives. It is Present only in session related charging. |
| Record Extensions | OC | A set of operator/manufacturer specific extensions to the record, conditioned upon existence of an extension. |

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| **Ninth change** |

6.1.3.13 ATCF CDR content

**Table 6.1.3.13.1: Charging data of ATCF CDR**

| Field | Category | Description |
| --- | --- | --- |
| Record Type | M | Identifies the type of record. The parameter is derived from the Node functionality parameter. |
| Retransmission | OC | This parameter, when present, indicates that information from retransmitted Charging Data Requests has been used in this CDR |
| SIP Method | OC | Specifies the SIP-method for which the CDR is generated. Only available in session unrelated cases. |
| Event | OC | This field identifies the SIP event package to which the SIP request is referred. |
| Expires Information | OC | This field indicates the validity time of either the SIP message or its content, depending on the SIP method. |
| Role of node | OM | This field indicates whether the ATCF is serving the Originating or the Terminating party. |
| Node Address | OM | This item holds the address of the node providing the information for the CDR. This may either be the IP address or the FQDN of the IMS node generating the accounting data. |
| Session ID | OM | The Session identification. For a SIP session the Session-ID contains the SIP Call ID as defined in the Session Initiation Protocol RFC 3261 [404]. When the ATCF acts as B2BUA, the incoming session is identified, except for the "OneChargingSession" option, where it contains either the incoming or outgoing dialog SIP Call Id involved during IMS session setup. |
| Outgoing Session ID | OC | When the ATCF acts as B2BUA, the outgoing session is identified by the Outgoing Session ID which contains the SIP Call ID (as defined in the RFC 3261 [404]). This field is not used for the "OneChargingSession" option |
| Session Priority | OC | The field contains the priority of the session. |
| List Of Calling Party Address | OM | The address or addresses (Public User ID or Public Service ID, Correlation MSISDN) of the party requesting a service or initiating a session. In the case of no P-Asserted-Identify is known, this list shall include one item with the value "unknown". |
| Called Party Address | OM | For SIP transactions, except for registration, this field holds the address of the party (Public User ID or Public Service ID) to whom the SIP transaction is posted.  For registration transactions, this field holds the Public User ID under registration. |
| List of Requested Party Address | OC | This field is a list of Requested Party Address.  This field is only present if different from the Called Party Address parameter. |
| List of Subscription Id | OM | Holds the public user identities of the served user |
| List of Called Asserted Identity | OC | The address or addresses of the final asserted identities. Present if the final asserted identities are available in the SIP 2xx response. |
| List of Called Identity Changes | OC | List of terminating identity address changes and associated timestamps. |
| Called Identity Change Time Stamp | OC | Timestamp of SIP UPDATE or SIP RE-INVITE with changed terminating identity information. |
| Called Identity | OC | Changed terminating identity information received in a SIP UPDATE or SIP RE-INVITE. |
| Service Request Time Stamp | OM | This field contains the time stamp which indicates the time at which the service was requested. This parameter corresponds to SIP Request Timestamp. Present with Charging Data Request [Start] and Charging Data Request [Event]. |
| Service Request Time Stamp Fraction | OM | This parameter contains the milliseconds fraction in relation to the Service Request Time Stamp. |
| Service Delivery Start Time Stamp | OM | This field holds the time stamp reflecting either: successful session set-up, a delivery unrelated service, an unsuccessful session set-up and an unsuccessful session unrelated request. This parameter corresponds to SIP Response Timestamp. Present with Charging Data Request [Start] and Charging Data Request [Event]. |
| Service Delivery Start Time Stamp Fraction | OM | This parameter contains the milliseconds fraction in relation to the Service Delivery Start Time Stamp. |
| Service Delivery End Time Stamp | OC | This field records the time at which the service delivery was terminated. It is Present only in SIP session related case. This parameter corresponds to SIP Request Timestamp. Present with Charging Data Request [Stop]. |
| Service Delivery End Time Stamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the Service Delivery End Time Stamp. |
| Record Opening Time | OC | A time stamp reflecting the time the CDF opened this record. Present only in SIP session related case. |
| Record Closure Time | OM | A Time stamp reflecting the time the CDF closed the record. |
| Inter Operator Identifiers | OC | Holds the identification of the home network (originating and terminating) if exchanged via SIP signalling, as recorded in the *P-Charging-Vector header.* |
| Originating IOI | OC | This parameter corresponds to Orig-IOI header of the P-Charging-Vector defined in TS 24.229 [204]. |
| Terminating IOI | OC | This parameter corresponds to Term-IOI header of the P-Charging-Vector defined in TS 24.229 [204]. |
| Local Record Sequence Number | OM | This field includes a unique record number created by this node. The number is allocated sequentially for each partial CDR (or whole CDR) including all CDR types. The number is unique within the CDF. |
| Record Sequence Number | OC | This field contains a running sequence number employed to link the partial records generated by the CDF for a particular session. |
| Cause For Record Closing | OM | This field contains a reason for the close of the CDR. |
| Incomplete CDR Indication | OC | This field provides additional diagnostics when the CDF detects missing Charging Data Requests. |
| IMS Charging Identifier | OM | This parameter holds the IMS charging identifier (ICID) as generated by the IMS node for the SIP session. |
| Related IMS Charging Identifier | OC | This field contains the related IMS Charging Identifier in case of access transfer. |
| Related IMS Charging Identifier Generation Node | OC | This parameter holds the identifier of the server that generated the Related IMS charging identifier. |
| List of Early SDP Media Components | OC | This is a grouped field which may occur several times in one CDR.  This field shall not be present if no media components are set to active before the final SIP session answer to the initial SIP Invite is received.  This field can be present in either session or event CDRs. |
| SDP Session Description | OC | Holds the Session portion of SDP data exchanged in the above mentioned scenario, if available. |
| SDP Type | OM | This parameter indicates if the SDP media component is an SDP offer or SDP answer. |
| SDP Offer Timestamp | OM | This parameter contains the time of the SIP Request which conveys the SDP offer. |
| SDP Answer Timestamp | OM | This parameter contains the time of the response to the SIP Request which conveys the SDP answer. |
| SDP Media Components | OM | This is a grouped field comprising several sub-fields associated with one media component. Since several media components may exist for a session in parallel these sub-fields may occur several times. |
| SDP Media Name | OM | This field holds the name of the media as available in the SDP data. |
| SDP Media Description | OM | This field holds the attributes of the media as available in the SDP data. |
| Access Correlation ID | OC | This parameter holds the charging identifier from the access network, consisting of either GPRS charging ID (GCID) which is generated by the GGSN for a GPRS PDP context, Charging Id which is generated by P-GW for IP-CAN bearer or the Access Network Charging Identifier Value which is generated by another type of access network.  It is present only if received from the access network when PCC architecture is implemented. |
| Media Initiator flag | OC | This field indicates if the called party has requested the session modification and it is present only if the initiator was the called party. |
| List of SDP Media Components | OC | This is a grouped field which may occur several times in one CDR. .  The field is present only in a SIP session related case.  When the ATCF acts as B2BUA and "OneChargingSession" option applies, only SDP media components received by the ATCF are included, i.e. those generated by the ATCF are not included. |
| SDP Session Description | OC | Holds the Session portion of the SDP data exchanged between the User Agents if available in the SIP transaction. |
| SDP Type | OM | This parameter indicates if the SDP media component is an SDP offer or SDP answer. |
| SIP Request Timestamp | OC | This parameter contains the time of the SIP Request (usually a (RE-)INVITE). This parameter corresponds to SIP Request Timestamp in Charging Data Request [Interim]. |
| SIP Response Timestamp | OC | This parameter contains appropriately the time of SIP 200 OK acknowledging an SIP INVITE or of SIP ACK including an SDP answer. This parameter corresponds to SIP Response Timestamp in Charging Data Request [Interim]. |
| SIP Request Timestamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the SIP Request Timestamp. |
| SIP Response Timestamp Fraction | OC | This parameter contains appropriately the time of SIP 200 OK acknowledging an SIP INVITE or of SIP ACK including an SDP answer. This parameter corresponds to SIP Response Timestamp in Charging Data Request [Interim]. |
| SDP Media Components | OM | This is a grouped field comprising several sub-fields associated with one media component. Since several media components may exist for a session in parallel these sub-fields may occur several times. |
| SDP Media Name | OM | This field holds the name of the media as available in the SDP data. |
| SDP Media Description | OM | This field holds the attributes of the media as available in the SDP data. |
| Access Correlation ID | OC | This parameter holds the charging identifier from the access network, consisting of either GPRS charging ID (GCID) which is generated by the GGSN for a GPRS PDP context, Charging Id which is generated by P-GW for IP-CAN bearer or the Access Network Charging Identifier Value which is generated by another type of access network.  It is present only if received from the access network when PCC architecture is implemented. |
| Media Initiator flag | OC | This field indicates if the called party has requested the session modification and it is present only if the initiator was the called party. |
| GGSN Address | OC | This parameter holds the control plane IP address of the GGSN that handles one or more media component(s) of a IMS session. |
| Service Reason Return Code | OM | This parameter provides the returned SIP status code for the service request for the successful and failure case, |
| List Of Reason Header | OC | This parameter contains the list of SIP reason headers included in BYE or CANCEL method terminating the service,  Reliability of this information is not guaranteed if the SIP or CANCEL is originated outside of the trust domain which is determined by the Operator on a "per parameter basis". |
| List of Message Bodies | OC | This grouped field comprising several sub-fields describing the data that may be conveyed end-to-end in the body of a SIP message. Since several message bodies may be exchanged via SIP-signalling, this grouped field may occur several times. |
| Content-Type | OM | This sub-field of Message Bodies holds the MIME type of the message body, Examples are: application/zip, image/gif, audio/mpeg, etc. |
| Content-Disposition | OC | This sub-field of Message Bodies holds the content disposition of the message body inside the SIP signalling, Content-disposition header field equal to "render", indicates that "the body part should be displayed or otherwise rendered to the user". Content disposition values are : session, render, inline, icon, alert, attachment, etc. |
| Content-Length | OM | This sub-field of Message Bodies holds the size of the data of a message body in bytes. |
| Originator | OC | This sub-field of the "List of Message Bodies" indicates the originating party of the message body. |
| Access Network Information | OC | This field contains the content ofone SIP P-header "P-Access-Network-Info", available in the IMS Node when charging session starts, if available. |
| Additional Access Network Information | OC | This field contains the content of additional SIP P-header "P-Access-Network-Info", available in the IMS Node as additional location when charging session starts, if available. |
| Cellular Network Information | OC | This field contains the content of one SIP "Cellular-Network-Info" header, when the UE supporting one or more cellular radio access technologies but using a non-cellular IP-CAN, such as untrusted WLAN access, provides this header field to relay information to its service provider about the radio cell identity of the cellular radio access network on which the UE most recently camped. |
| List of Access Network Info Change | OC | This field is a list of grouped field describing the subsequent SIP P-header "P-Access-Network-Info" and "Cellular-Network-Info" changes. |
| Access Network Information | OC | This field holds the content of the SIP P-header "P-Access-Network-Info", when changed from the previous one. |
| Additional Access Network Information | OC | This field holds the content of additional SIP P-header "P-Access-Network-Info" when changed from the previous one, if available. |
| Cellular Network Information | OC | This field contains the content of one SIP "Cellular-Network-Info" header, when the UE supporting one or more cellular radio access technologies but using a non-cellular IP-CAN, such as untrusted WLAN access, provides this header field to relay information to its service provider about the radio cell identity of the cellular radio access network on which the UE most recently camped. This field is applicable when changed from the previous one, if available. |
| Access Change Time | OC | This field contains the time at which the changed user location information was acquired. |
| List of Access Transfer Information | OC | This field is a list of grouped field describing the subsequent session transfers.  Each other occurrence comprises sub-fields describing the session transfer performed. |
| Access Transfer Type | OC | This field contains indication about the access transfer performed. This field is present only when transfer occurred. |
| Access Network Information | OC | This field holds the content of one SIP P-header "P-Access-Network-Info" from the SIP INVITE requesting the transfer, if available. |
| Additional Access Network Information | OC | This field contains the content of an additional SIP P-header "P-Access-Network-Info" from the SIP INVITE requesting the transfer, if available. |
| Cellular Network Information | OC | This field contains the content of one SIP "Cellular-Network-Info" header, when the UE supporting one or more cellular radio access technologies but using a non-cellular IP-CAN, such as untrusted WLAN access, provides this header field to relay information to its service provider about the radio cell identity of the cellular radio access network on which the UE most recently camped. |
| Subscriber Equipment Number | OC | This field contains the identification of the mobile device ( e.g. IMEI) that the subscriber is using following successful inter-UE transfer. |
| Instance Id | OC | This field uniquely identifies the device (fixed or mobile) of the served user following successful inter-UE transfer. |
| Related IMS Charging Identifier | OC | This field contains the related IMS Charging Identifier in case of access transfer. |
| Related IMS Charging Identifier Generation Node | OC | This parameter holds the identifier of the server that generated the Related IMS charging identifier in case of access transfer. |
| Access Transfer Time | OC | This field contains the time stamp, which indicates the time at which the session transfer occurred. |
| Service Context Id | OM | Holds the context information to which the CDR belongs. The information is obtained from the Operation Token of the Charging Data Request message. |
| IMS Communication Service ID | OC | This field contains the IMS communication service identifier if received in the P-Asserted-Service header in the SIP request when the ATCF is downstream from the S‑CSCF serving the Originating party or the topmost occurrence of the "+g.3gpp.icsi-ref" header field parameter of the Feature-Caps header in the SIP response when the ATCF is upstream from the S‑CSCF serving the Originating party. |
| Initial IMS Charging Identifier | OC | This parameter holds the Initial IMS charging identifier (ICID) as generated by the IMS node for the initial SIP session created for IMS service continuity.  This field is not used for the "OneChargingSession" option. |
| User Location Info | OC | This field contains the network provided location information for 3GPP accesses available in the IMS Node when charging session starts, if available. |
| MS Time Zone | OC | This field indicates the offset between universal time and local time in steps of 15 minutes of where the MS currently resides. |
| NNI Information | OC | This grouped field holds information about the NNI used for interconnection and roaming on the loopback routing path. It is present only if RAVEL “VPLMN routing” is applied. |
| NNI Type | OC | This field indicates usage of the roaming NNI for loopback routing, The loopback indication was received by the AS. |
| From Address | OM | Contains the information from the SIP From header. |
| SIP Route header received | OC | Contains the information in the topmost route header in a received initial SIP INVITE or non-session related SIP MESSAGE request. |
| SIP Route header transmitted | OC | Contains the information in the route header representing the destination in a transmitted initial SIP INVITE or non-session related SIP MESSAGE request. |
| ACR Interim Time Stamp | OC | This field contains the event time stamp carried in the latest ACR[Interim] CDF receives. It is Present only in session related charging. |
| Record Extensions | OC | A set of operator/manufacturer specific extensions to the record, conditioned upon existence of an extension. |

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| **Tenth change** |

6.1.3.14 TF CDR content

**Table 6.1.3.12.1: Charging data of TF CDR**

| Field | Category | Description |
| --- | --- | --- |
| Record Type | M | Identifies the type of record. The parameter is derived from the Node functionality parameter. |
| Retransmission | OC | This parameter, when present, indicates that information from retransmitted Charging Data Requests has been used in this CDR |
| SIP Method | OC | Specifies the SIP-method for which the CDR is generated. Only available in session unrelated cases. |
| Event | OC | This field identifies the SIP event package to which the SIP request is referred. |
| Expires Information | OC | This field indicates the validity time of either the SIP message or its content, depending on the SIP method. |
| Role of node | OC | This field indicates whether the Transit Functions are serving the Originating or the Terminating party. |
| Node Address | OM | This item holds the address of the node providing the information for the CDR. This may either be the IP address or the FQDN of the IMS node generating the accounting data. |
| Session ID | OM | The Session identification. For a SIP session the Session-ID contains the SIP Call ID as defined in the Session Initiation Protocol RFC 3261 [404]. |
| Session Priority | OC | The field contains the priority of the session. |
| List Of Calling Party Address | OM | The address or addresses (Public User ID or Public Service ID) of the party requesting a service or initiating a session. In the case of no P-Asserted-Identify is known, this list shall include one item with the value “unknown”. |
| Called Party Address | OM | For SIP transactions, except for registration, this field holds the address of the party (Public User ID or Public Service ID) to whom the SIP transaction is posted.  For registration transactions, this field holds the Public User ID under registration. |
| Requested Party Address | OC | For SIP transactions this field holds the address of the party (Public User ID or Public Service ID) to whom the SIP transaction was originally posted.  This field is only present if different from the Called Party Address parameter. |
| List of Called Asserted Identity | OC | The address or addresses of the final asserted identities. Present if the final asserted identities are available in the SIP 2xx response. |
| List of Called Identity Changes | OC | List of terminating identity address changes and associated timestamps. |
| Called Identity Change Time Stamp | OC | Timestamp of SIP UPDATE or SIP RE-INVITE with changed terminating identity information. |
| Called Identity | OC | Changed terminating identity information received in a SIP UPDATE or SIP RE-INVITE. |
| Private User ID | OC | Holds the used private user identity of the served party according to RFC2486 [405] if available*.* |
| List of Subscription Id | OC | Holds the public user identities of the served user |
| Service Request Time Stamp | OM | This field contains the time stamp, which indicates the time at which the service was requested. |
| Service Request Time Stamp Fraction | OM | This parameter contains the milliseconds fraction in relation to the Service Request Time Stamp. |
| Service Delivery Start Time Stamp | OM | This field holds the time stamp reflecting either: successful session set-up, a delivery unrelated service, an unsuccessful session set-up and an unsuccessful session unrelated request. |
| Service Delivery Start Time Stamp Fraction | OM | This parameter contains the milliseconds fraction in relation to the Service Delivery Start Time Stamp. |
| Service Delivery End Time Stamp | OC | This field records the time at which the service delivery was terminated. It is Present only in SIP session related case. |
| Service Delivery End Time Stamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the Service Delivery End Time Stamp. |
| Record Opening Time | OC | A time stamp reflecting the time the CDF opened this record. Present only in SIP session related case. |
| Record Closure Time | OM | A Time stamp reflecting the time the CDF closed the record. |
| Application Servers Information | OC | This a grouped CDR field containing the fields: “Application Server Involved” and “Application Provided Called Parties”, to cover the case of transit network providing IMS application services. |
| Application Servers Involved | OC | Holds the ASs (if any) identified by the SIP URIs. |
| Application Provided Called Parties | OC | Holds a list of the Called party address(es), if the address(es) are determined by an AS (SIP URI, E.164…). |
| List of Inter Operator Identifiers | OC | Holds the identification of the home network (originating and terminating) if exchanged via SIP signalling, as recorded in the P-Charging-Vector header. This grouped field may occur several times in one CDR. |
| Originating IOI | OC | This parameter corresponds to Orig-IOI header of the P-Charging-Vector defined in TS 24.229 [204]. |
| Terminating IOI | OC | This parameter corresponds to Term-IOI header of the P-Charging-Vector defined in TS 24.229 [204]. |
| Transit IOI List | Oc | This parameter corresponds to Transit-IOI List of the P-Charging-Vector defined in TS 24.229 [204]. This field may occur several times in one CDR. Each occurrence represents transit IOI values received from the path inbound to or outbound from the TF, including the own Transit IOI. |
| Local Record Sequence Number | OM | This field includes a unique record number created by the Transit Functions. The number is allocated sequentially for each partial CDR (or whole CDR) including all CDR types. The number is unique within the CDF. |
| Record Sequence Number | OC | This field contains a running sequence number employed to link the partial records generated by the CDF for a particular session. |
| Cause For Record Closing | OM | This field contains a reason for the close of the CDR. |
| Incomplete CDR Indication | OC | This field provides additional diagnostics when the CDF detects missing Charging Data Requests. |
| IMS Charging Identifier | OM | This parameter holds the IMS charging identifier (ICID) as generated by the IMS node for the SIP session. |
| List of Early SDP Media Components | OC | This is a grouped field which may occur several times in one CDR.  .  This field shall not be present if no media components are set to active before the final SIP session answer to the initial SIP Invite is received.  This field can be present in either session or event CDRs. |
| SDP Session Description | OC | Holds the Session portion of SDP data exchanged in the above mentioned scenario, if available. |
| SDP Type | OM | This parameter indicates if the SDP media component is an SDP offer or SDP answer. |
| SDP Offer Timestamp | OM | This parameter contains the time of the SIP Request which conveys the SDP offer. |
| SDP Answer Timestamp | OM | This parameter contains the time of the response to the SIP Request which conveys the SDP answer. |
| SDP Media Components | OM | This is a grouped field comprising several sub-fields associated with one media component. Since several media components may exist for a session in parallel these sub-fields may occur several times. |
| SDP Media Name | OM | This field holds the name of the media as available in the SDP data. |
| SDP Media Description | OM | This field holds the attributes of the media as available in the SDP data. |
| Media Initiator flag | OC | This field indicates if the called party has requested the session modification and it is present only if the initiator was the called party. |
| List of SDP Media Components | OC | This is a grouped field which may occur several times in one CDR.  The field is present only in a SIP session related case. |
| SDP Session Description | OC | Holds the Session portion of the SDP data exchanged between the User Agents if available in the SIP transaction. |
| SDP Type | OM | This parameter indicates if the SDP media component is an SDP offer or SDP answer. |
| SIP Request Timestamp | OC | This parameter contains the time of the SIP Request (usually a SIP (RE-)INVITE). |
| SIP Response Timestamp | OC | This parameter contains appropriately the time of SIP 200 OK acknowledging an SIP INVITE or of SIP ACK including an SDP answer. |
| SIP Request Timestamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the SIP Request Timestamp. |
| SIP Response Timestamp Fraction | OC | This parameter contains the milliseconds fraction in relation to the SIP Response Timestamp. |
| SDP Media Components | OM | This is a grouped field comprising several sub-fields associated with one media component. Since several media components may exist for a session in parallel these sub-fields may occur several times. |
| SDP Media Name | OM | This field holds the name of the media as available in the SDP data. |
| SDP Media Description | OM | This field holds the attributes of the media as available in the SDP data. |
| Media Initiator flag | OC | This field indicates if the called party has requested the session modification and it is present only if the initiator was the called party. |
| Service Reason Return Code | OM | This parameter provides the returned SIP status code for the service request for the successful and failure case, |
| List Of Reason Header | OC | This parameter contains the list of SIP reason headers included in SIP BYE or CANCEL method terminating the service,  Reliability of this information is not guaranteed if the SIP or CANCEL is originated outside of the trust domain which is determined by the Operator on a “per parameter basis”. |
| List of Message Bodies | OC | This grouped field comprising several sub-fields describing the data that may be conveyed end-to-end in the body of a SIP message. Since several message bodies may be exchanged via SIP-signalling, this grouped field may occur several times. |
| Content-Type | OM | This sub-field of Message Bodies holds the MIME type of the message body, Examples are: application/zip, image/gif, audio/mpeg, etc. |
| Content-Disposition | OC | This sub-field of Message Bodies holds the content disposition of the message body inside the SIP signalling, Content-disposition header field equal to “render”, indicates that “the body part should be displayed or otherwise rendered to the user”. Content disposition values are: session, render, inline, icon, alert, attachment, etc. |
| Content-Length | OM | This sub-field of Message Bodies holds the size of the data of a message body in bytes. |
| Originator | OC | This sub-field of the "List of Message Bodies" indicates the originating party of the message body. |
| Service Context Id | OM | Holds the context information to which the CDR belongs. The information is obtained from the Operation Token of the Charging Data Request message. |
| IMS Communication Service ID | OC | This field contains the IMS communication service identifier if received in the P-Asserted-Service header in the SIP request. |
| NNI Information | OC | This grouped field holds information about the NNI used for interconnection and roaming on the loopback routing path. It is present only if “VPLMN routing” is applied in a Roaming Architecture for Voice over IMS with Local breakout. |
| NNI Type | OC | This field indicates usage of the roaming NNI for loopback routing, i.e. S-CSCF performed the loopback decision. |
| From Address | OM | Contains the information from the SIP From header. |
| SIP Route header received | OC | Contains the information in the topmost route header in a received initial SIP INVITE or non-session related SIP MESSAGE request prior to triggering of any ASs. |
| SIP Route header transmitted | OC | Contains the information in the route header representing the destination in a transmitted initial SIP INVITE or non-session related SIP MESSAGE request following triggering of all ASs. |
| ACR Interim Time Stamp | OC | This field contains the event time stamp carried in the latest ACR[Interim] CDF receives. It is Present only in session related charging. |
| Record Extensions | OC | A set of operator/manufacturer specific extensions to the record, conditioned upon existence of an extension. |

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| **End of change** |