3GPP TSG SA WG5 Meeting 134-e TDoc S5-205122rev6

**electronic meeting, online, 16th - 25th November 2020**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **32.260** | **CR** | **0407** | **rev** | **1** | **Current version:** | **16.2.0** |  |
|  | | | | | | | | |
| *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:*** | Add service based architecture for offline charging | | | | | | | | | |
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| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5GSIMSCH | | | | |  | ***Date:*** | | | 2020-11-19 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
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| ***Reason for change:*** | | Offline only charging triggers for IMS service based charging is missing. | | | | | | | | |
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| ***Summary of change:*** | | Adding Offline only charging triggers for IMS service based charging. | | | | | | | | |
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| ***Consequences if not approved:*** | | Offline only charging for IMS service based charging architecture options won’t be specified. | | | | | | | | |
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| ***Clauses affected:*** | | 5.4.3 | | | | | | | | |
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|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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| **First change** |

### 5.4.3 Applicable triggers for IMS charging

The IMS nodes for which SIP method a charging Data Request is sent shall be operator configurable. The tables below describe all possible Charging Data Requests that might be sent from IMS nodes.

The generation of a Charging Data Request message by the IMS nodes in response to a particular "triggering SIP method" shall be operator configurable (enable or disable).

Table 5.4.3.1: Default Trigger conditions in or MRFC

| Trigger Conditions | | Trigger level | Converged Charging default category | Offline only charging default category | CHF allowed to change category | CHF allowed to enable and disable | Message when "immediate reporting" category |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SIP INVITE for initiating a multimedia ad hoc conferencing session | | - | Immediate | Not Applicable | Not Applicable | Not Applicable | SCUR: Charging Data Request [Initial] |
| SIP 2xx acknowledging an SIP INVITE for initiating a multimedia ad hoc conferencing session, and no charging session exists. | | - | Immediate | Immediate | Not Applicable | Not Applicable |
| SIP ACK acknowledging a SIP INVITE to connect an UE to the conferencing session | | - | Immediate | Immediate | Not Applicable | Not Applicable | SCUR: Charging Data Request [Update] |
| SIP RE-INVITE or SIP UPDATE[e.g. change in media components] | | - | Immediate | Immediate | Not Applicable | Not Applicable |
| SIP BYE(NOTE 1) | | - | Immediate | Immediate | Not Applicable | Not Applicable |
| Expiration of Interim | | - | Immediate | Immediate | Not Applicable | Not Applicable |
| Expiration of quota, Validity time expiry or other authorization triggers (quota threshold reached, …). | | - | Immediate | Not Applicable | Not Applicable | Not Applicable |
| SIP BYE message (both normal and abnormal session termination cases) (NOTE 2) | | - | Immediate | Immediate | Not Applicable | Not Applicable | SCUR: Charging Data Request [Termination] |
| SIP CANCEL | | - | Immediate | Immediate | Not Applicable | Not Applicable |
| SIP Final Response with error codes 4xx, 5xx or 6xx indicating termination of an ongoing session | | - | Immediate | Immediate | Not Applicable | Not Applicable |
|  | NOTE 1: This trigger only applies to a user leaving an ongoing conferencing session  NOTE 2: This trigger only applies if this causes the ongoing conferencing session to terminate | | | | | | |

Table 5.4.3.2: Default Trigger conditions in or IMS-GWF or AS

| Trigger Conditions | Trigger level | Converged Charging default category | Offline only charging default category | CHF allowed to change category | CHF allowed to enable and disable | Message when "immediate reporting" category |
| --- | --- | --- | --- | --- | --- | --- |
| SIP INVITE | - | Immediate | Immediate | Not Applicable | Not Applicable | SCUR: Charging Data Request [Initial]  ECUR: Charging Data Request [Initial] |
| SIP NOTIFY | - | Immediate | Not Applicable | Not Applicable | Not Applicable |
| SIP MESSAGE | - | Immediate | Not Applicable | Not Applicable | Not Applicable |
| SIP REGISTER | - | Immediate | Not Applicable | Not Applicable | Not Applicable |
| SIP SUBSCRIBE | - | Immediate | Not Applicable | Not Applicable | Not Applicable |
| SIP REFER | - | Immediate | Not Applicable | Not Applicable | Not Applicable |
| SIP PUBLISH | - | Immediate | Not Applicable | Not Applicable | Not Applicable |
| SIP 2xx acknowledging a SIP INVITE, RE-INVITE or SIP UPDATE [e.g. change in media components] | - | Immediate | Immediate | Not Applicable | Not Applicable | SCUR: Charging Data Request [Update] |
| RE-INVITE or SIP UPDATE [e.g. change in media components, terminating identity change] | - | Immediate | Immediate | Not Applicable | Not Applicable |
| Expiration of quota, Validity time expiry or other authorization triggers (quota threshold reached, …). | - | Immediate | Not Applicable | Not Applicable | Not Applicable |
| Any SIP message (except those triggering a Debit / Reserve Units Request[Initial] or those not covered by the above triggers for Reserve Units Request[Update] conveying a SDP offer or its associated SDP answer before SIP session establishment | - | Immediate | Not Applicable | Not Applicable | Not Applicable |
| SIP 1xx provisional response, mid-dialog requests, mid-dialog responses and SIP INFO embedding RTTI XML body | - | Immediate | Not Applicable | Not Applicable | Not Applicable |
|  |  |  |  |  |  |
| SIP BYE message (both normal and abnormal session termination cases) | - | Immediate | Immediate | Not Applicable | Not Applicable | SCUR: Charging Data Request [Termination] |
| SIP 2xx acknowledging a SIP BYE message (only when last user location information of originating/ terminating party is required by operator for legal purpose). | - | Immediate | Immediate | Not Applicable | Not Applicable |
| SIP Final Response (4xx, 5xx or 6xx), indicating an unsuccessful SIP session set-up procedure | - | Immediate | Immediate | Not Applicable | Not Applicable |
| SIP 2xx acknowledging non-session related SIP messages | - | Immediate | Not Applicable | Not Applicable | Not Applicable | ECUR: Charging Data Request [Termination] |
| SIP Final Response (4xx, 5xx or 6xx), indicating an unsuccessful session-unrelated procedure | - | Immediate | Not Applicable | Not Applicable | Not Applicable |
| Aborting a SIP session set-up procedure, using an internal trigger, or a SIP CANCEL | - | Immediate | Not Applicable | Not Applicable | Not Applicable | ECUR: Charging Data Request [Termination]  SCUR: Charging Data Request [Termination] |
| Deregistration | - | Immediate | Not Applicable | Not Applicable | Not Applicable |
| SIP Final/Redirection Response 3xx | - | Immediate | Not Applicable | Not Applicable | Not Applicable |
| SIP NOTIFY | - | Immediate | Immediate | Not Applicable | Not Applicable | IEC: Charging Data Request [Event] |
| SIP MESSAGE | - | Immediate | Immediate | Not Applicable | Not Applicable |
| SIP REGISTER | - | Immediate | Immediate | Not Applicable | Not Applicable |
| SIP SUBSCRIBE | - | Immediate | Immediate | Not Applicable | Not Applicable |
| SIP REFER | - | Immediate | Immediate | Not Applicable | Not Applicable |
| SIP PUBLISH | - | Immediate | Immediate | Not Applicable | Not Applicable |
| SIP Final Response (4xx, 5xx or 6xx), indicating an unsuccessful session-unrelated procedure | - | Immediate | Immediate | Not Applicable | Not Applicable |

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| **End of changes** |