**3GPP TSG-SA5 Meeting #154 *S5-241862***

**Changsha, CHINA, 15 Apr - 19 Apr 2024**  Revision of S5-241631

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **32.291** | **CR** | **0553** | **rev** | **1** | **Current version:** | **18.5.0** |  |
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| *For* [***HELP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** | Rel-18 CR 32.291 Correction on triggers in Trigger Type | | | | | | | | | |
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| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI18 | | | | |  | ***Date:*** | | | 2024-04-17 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | F |  | | | | | ***Release:*** | | | Rel-18 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories 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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
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| Reason for change: | | In the service description of Nchf\_ConvergedCharging, triggers for IMS charging, SMF charging and NSACF charging are specified in the Trigger Type.  The common triggers is present for readability improvement. | | | | | | | | |
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| ***Summary of change:*** | | Add the common triggers in the Nchf\_Convergedcharging. | | | | | | | | |
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| ***Consequences if not approved:*** | | The trigger type is unclear in the stage 2. | | | | | | | | |
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| ***Clauses affected:*** | | 6.1.6.3.6 | | | | | | | | |
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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** |

##### 6.1.6.3.6 Enumeration: TriggerType

Table 6.1.6.3.6-1: Enumeration TriggerType

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| --- | --- | --- |
| Enumeration value | Description | Applicability |
| Common Trigger | | |
| QUOTA\_THRESHOLD | the quota threshold has been reached |  |
| QUOTA\_EXHAUSTED | the quota has been exhausted |  |
| QHT | the quota holding time specified in a previous response has been hit (i.e. the quota has been unused for that period of time) |  |
| VALIDITY\_TIME | the credit authorization lifetime provided from CHF has expired |  |
| TIME\_LIMIT | Time limit has been reached |  |
| MAX\_NUMBER\_OF\_CHANGES\_IN\_CHARGING\_CONDITIONS | Max number of change has been reached |  |
| FORCED\_REAUTHORISATION | a Server initiated re-authorization procedure, i.e. receipt of notify service operation |  |
| MANAGEMENT\_INTERVENTION | Management intervention |  |
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| SMF Trigger | | |
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| FINAL | a service normal termination has occurred. |  |
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| OTHER\_QUOTA\_TYPE | usage reporting of the particular quota type indicated in the used unit container where it appears is that, for a multi-dimensional quota, one reached a trigger condition and the other quota is being reported. |  |
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| UNIT\_COUNT\_INACTIVITY\_TIMER | the unit count inactivity timer has expired |  |
| ABNORMAL\_RELEASE | a service abnormal termination has occurred. |  |
| QOS\_CHANGE | In request message, this value is used to indicate that QoS change has happened. Any of elements of QoSData may result in QoS change.  In response message, this value is used to indicate that a change of authorized QoS shall cause the service consumer to ask for a re-authorization of the associated quota. |  |
| VOLUME\_LIMIT | Volume limit has been reached. |  |
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| EVENT\_LIMIT | Event limit has been reached |  |
| PLMN\_CHANGE | PLMN has been changed.  For IMS this could be indicated by a SIP MESSAGE with a change of PLMN ID during an ongoing call. |  |
| USER\_LOCATION\_CHANGE | In request message, this value is used to indicate that User location has been changed. The change in location information that triggered reporting is included.  In response message, this value is used to indicate that a change in the end user location shall cause the service consumer to ask for a re-authorization of the associated quota |  |
| RAT\_CHANGE | In request message, this value is used to indicate that RAT type has been changed.  In response message, this value is used to indicate that a change in the radio access technology shall cause the service consumer to ask for a re-authorization of the associated quota |  |
| SESSION\_AMBR\_CHANGE | In request message, this value is used to indicate that Session AMBR has been changed.  In response message, this value is used to indicate that a change in the session AMBR shall cause the service consumer to ask for a re-authorization of the associated quota. |  |
| GFBR\_GUARANTEED\_STATUS\_CHANGE | In request message,thisvalue is used to indicate that GFBR targets for the indicated SDFs are changed ("NOT\_GUARANTEED" or "GUARANTEED" again).  In response message, this value is used to indicate that a NF Consumer (CTF) needs to ensure requesting the notification from the access network and that a change in the GFBR targets shall cause the service consumer to ask for a re-authorization of the associated quota. |  |
| UE\_TIMEZONE\_CHANGE | In request message, this value is used to indicate that UE timezone has been changed.  In response message, this value is used to indicate that a change in the time zone where the end user is located shall cause the service consumer to ask for a re-authorization of the associated quota. |  |
| TARIFF\_TIME\_CHANGE | Tariff time change has happened. |  |
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| CHANGE\_OF\_UE\_PRESENCE\_IN\_PRESENCE\_REPORTING\_AREA | In request message, this value is used to indicate that Change of UE presence in PRA has happened.  In response message, this value is used to indicate a request of reporting the event that the user enters/leaves the area(s) as indicated in the presenceReportingArea Attribute |  |
| CHANGE\_OF\_3GPP\_PS\_DATA\_OFF\_STATUS | In request message, this value is used to indicate that Change of 3GPP PS Data off status has happened.  In response message, this value is used to indicate that a change in the 3GPP PS Data off status shall cause the service consumer to ask for a re-authorization of the associated quota |  |
| SERVING\_NODE\_CHANGE | A serving node (e.g., AMF) change in the NF Consumer |  |
| REMOVAL\_OF\_UPF | A used UPF is removed |  |
| ADDITION\_OF\_UPF | A new UPF is added. |  |
| INSERTION\_OF\_ISMF | A new I-SMF is inserted | ETSUN |
| REMOVAL\_OF\_ISMF | A used I-SMF is removed | ETSUN |
| CHANGE\_OF\_ISMF | A used I-SMF is removed, and a new I-SMF is inserted | ETSUN |
| START\_OF\_SERVICE\_DATA\_FLOW | A Service Data Flow has started |  |
| HANDOVER\_CANCEL | The handover is cancelled. |  |
| HANDOVER\_START | The handover is start. |  |
| HANDOVER\_COMPLETE | The handover is completed. |  |
| ECGI\_CHANGE | In request message, this value is used to indicate that ECGI has been changed.  In response message, this value is used to indicate that a change in the end user location shall cause the service consumer to ask for a re-authorization of the associated quota | 5GIEPC\_CH |
| TAI\_CHANGE | In request message, this value is used to indicate that TAI has been changed.  In response message, this value is used to indicate that a change in the end user location shall cause the service consumer to ask for a re-authorization of the associated quota | 5GIEPC\_CH |
| ADDITION\_OF\_ACCESS | Addition of access to the MA PDU session | ATSSS |
| REMOVAL\_OF\_ACCESS | Removal of access to the MA PDU session | ATSSS |
| START\_OF\_SDF\_ADDITIONAL\_ACCESS | Start of service data flow on additional access in a MA PDU session | ATSSS |
| REDUNDANT\_TRANSMISSION\_CHANGE | In request message, this value is used to indicate whether redundant transmission has been activated or not.  In response message, this value is used to indicate that a change for the redendant transmission shall cause the service consumer to ask for a re-authorization and reporting. | URLLC |
| CGI\_SAI\_CHANGE | In request message, this value is used to indicate that CGI-SAI has been changed.  In response message, this value is used to indicate that a change in the end user location shall cause the service consumer to ask for a re-authorization of the associated quota | TEI17\_NIESGU |
| RAI\_CHANGE | In request message, this value is used to indicate that RAI has been changed.  In response message, this value is used to indicate that a change in the end user location shall cause the service consumer to ask for a re-authorization of the associated quota | TEI17\_NIESGU |
| VSMF\_CHANGE | In initial request message, this value is used to indicate a new V-SMF is inserted during the mobility procedure.  In terminate request message, this value is used to indicate a used V-SMF is removed during mobility procedure. |  |
| S NSSAI\_REPLACEMENT | S NSSAI replaced by Alternative S NSSAI | NSREP |
| JOIN\_MULTICAST | UE joins a new multicast MBS session. | 5MBS\_CH |
| MBS\_DELIVERY\_METHOD\_CHANGE | MBS traffic delivery method has been changed. | 5MBS\_CH |
| LEAVE\_MULTICAST | UE leaves an existing multicast MBS session. | 5MBS\_CH |
| **IMS Trigger** | | |
| SIP\_INVITE | SIP invite | IMS |
| SIP\_RE-INVITE\_OR\_UPDATE | SIP re-invite or update (e.g. change in media components terminating identity change) | IMS |
| SIP\_2XX\_ACKNOWLEDGING | SIP 2xx acknowledging a sip invite re-invite or update (e.g. change in media components) | IMS |
| SIP\_1XX\_PROVISIONAL\_RESPONSE | SIP 1xx provisional response mid-dialog requests mid-dialog responses and SIP info embedding rtti xml body | IMS |
| SIP\_4XX\_5XX\_OR\_6XX\_RESPONSE | SIP 4xx 5xx or 6xx response indicating an unsuccessful sip re-invite or update | IMS |
| OTHER\_SIP\_MESSAGE | Other SIP message during a sip session that allows the sip session to continue | IMS |
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| SIP\_BYE\_MESSAGE | SIP bye message is received by IMS node | IMS |
| SIP\_2XX\_ACK\_A\_SIP\_BYE | SIP 2xx acknowledging a SIP bye message is received by IMS node | IMS |
| ABORTING\_A\_SIP\_SESSION\_SETUP | aborting a SIP session set-up procedure using an internal trigger or a SIP cancel message is received by IMS node | IMS |
| SIP\_3XX\_FINAL\_OR\_REDIRECTION\_RESPONSE | SIP 3xx final or redirection response | IMS |
| SIP\_4XX\_5XX\_OR\_6XX\_FINAL\_RESPONSE | SIP 4xx 5xx or 6xx final response indicating an unsuccessful procedure | IMS |
| **NSACF Triggers** | | |
| NSAC\_THRESHOLD\_INITIAL | The NSAC units threshold is reached for initial | NSACF |
| NSAC\_THRESHOLD\_UPWARDS\_REACHED | The NSAC units threshold going upwards is reached | NSACF |
| NSAC\_THRESHOLD\_UPWARDS\_CROSSED | TheNSAC units threshold crossed when going upwards | NSACF |
| NSAC\_THRESHOLD\_DOWNWARDS\_CROSSED | The NSAC units threshold crossed when going downwards | NSACF |
| NSAC\_QUOTA\_THRESHOLD | The NSAC units quota threshold is reached | NSACF |
| NSAC\_QUOTA\_EXHAUSTED | The NSAC units quota exhausted | NSACF |
| NSAC\_VALIDITY\_TIME | Expiry of NSAC units quota validity time | NSACF |
| NSAC\_QHT | Expiry of NSAC units quota holding time | NSACF |
| NSAC\_THRESHOLD\_TERMINATION | The NSAC units threshold is reached for termination | NSACF |
| NS\_TERMINATION | Network slice termination | NSACF |
| **MB-SMF Trigger** | | |
| ADDITION\_OF\_NG-RAN | A new NG-RAN node has established connection with MB-UPF in the MBS session. | 5MBS\_CH |
| REMOVAL\_OF\_NG-RAN | A used NG-RAN node has released connection with MB-UPF in the MBS session. | 5MBS\_CH |

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| **End of change** |