**3GPP TSG-CT WG3 Meeting #116e C3-213208**

**E-Meeting, 19th – 28th May 2021 (Revision of C3-21xxxx)**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **29.122** | **CR** | **0438** | **rev** |  | **Current version:** | **17.1.0** |  |
|  | | | | | | | | |
| *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:*** | Update procedures to support HSS initiated GEM partial cancellation | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI17\_GEM | | | | |  | ***Date:*** | | | 2021-05-10 |
|  |  | | | |  | |  | | |  |
| ***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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | TS 23.682 CR 0477 has been approved in SA2#144e meeting, adding Dynamic management of grouped based event monitoring supporting, including HSS initiated grouped based event monitoring partial cancellation to certain UEs within an active grouped based event monitoring subscription. Hence need to implement in this specification. | | | | | | | | |
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| ***Summary of change:*** | | Update in clause 4.4.2.3 and 4.4.2.4 for HSS initiated cancellation to certain UEs within an active grouped based event monitoring, SCEF just notify the cancellation for the UE(s)in the active group based monitoring notification, not impacting other UE(s) keeping event report in the group. When SCEF decides the last UE within the active group has been cancelled, then the "Individual Monitoring Event Subscription" shall be deleted. | | | | | | | | |
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| ***Consequences if not approved:*** | | Monitoring event for some group members are cancelled unexpectedly. | | | | | | | | |
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| ***Clauses affected:*** | | 4.4.2.3, 4.4.2.4 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS 23.682 CR 0477 | | |
| ***affected:*** | |  | **X** | Test specifications | | | |  | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | |  | | |
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| ***Other comments:*** | | This CR does not impact the OpenAPI file. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

**Additional discussion(if needed):**

**Proposed changes:**

\*\*\* 1st Change \*\*\*

#### 4.4.2.3 Reporting of Monitoring Event Procedure

Upon receipt of a Monitoring Event Report from the HSS or the MME/SGSN as defined in subclause 5.6.3 or subclause 5.6.8 of 3GPP TS 23.682 [2], from the PCRF as defined in subclause 5.6.5 or from the IWK-SCEF as defined in subclause 5.6.8 of 3GPP TS 23.682 [2], the SCEF shall determine the monitoring event subscription associated with the corresponding Monitoring Event Report.

If the monitoring event subscription refers to a Monitoring Event Configuration for a single UE or to a group-based Monitoring Event configuration, and no Group Reporting Guard Time was set, then the SCEF shall send an HTTP POST message including a link to the SCEF-created subscription resource and the received Monitoring Event Report to the identified destination. If the monitoring event subscription refers to a group-based Monitoring Event Configuration and Group Reporting Guard Time was provided during the Monitoring Event configuration procedure, then the SCEF shall accumulate all of the received Monitoring Event reports for the group of UEs until the Group Reporting Guard Time expires or the monitoring duration indicated by the property "monitorExpireTime" is reached.

Upon expiration of Group Reporting Guard Time or expiration of the monitoring duration, the SCEF shall send an HTTP POST message to the identified destination including a link to the SCEF-created subscription resource and the list of accumulated Monitoring Event Reports for each UE identified by either its External Identifier or MSISDN. The destination URL of the HTTP POST message is provided by the SCS/AS during the Monitoring Event Configuration procedure.

If the monitoring event subscription refers to a one-time monitoring request or a continuous monitoring request, but the maximum number of reports is reached, the SCEF shall consider the reporting as completed and delete the corresponding "Individual Monitoring Event Subscription" resource. In addition, the SCEF shall interact with the HSS to delete the event configuration if the latter was performed via the HSS whereas event reports were performed via the SGSN/MME. The SCEF determines that the reporting for a group is completed by comparing the total number of received reports with the number of UEs of the group (received from the HSS during event configuration for a group of UEs) multiplied by the maximum number of reports.

If SCEF support the Partial\_group\_cancellation feature and certain MSISDN(s) or External Identifier(s) within the active group based monitor subscription has been deleted, the rest of UE(s) within the active group based monitoring subscription are still applicable to the group based Monitoring Event Report identified by the External Group Identifier.

When the monitoring duration indicated by the property "monitorExpireTime" is reached, the SCEF shall delete the related event subscription and event configuration locally. The SCS/AS shall no longer address the corresponding "Individual Monitoring Event Subscription" resource.

\*\*\* 2nd Change \*\*\*

#### 4.4.2.4 Network-initiated Explicit Monitoring Event Deletion Procedure

Upon receipt of an -SCEF Reference ID for the event to be deleted from the HSS as defined in 3GPP TS 29.336 [11], the SCEF shall determine the subscription identifier associated with the indicated active monitoring subscription. Then the SCEF shall delete the related resource "Individual Monitoring Event Subscription", send an HTTP POST message including the subscription identifier and a cancellation indication to the identified destination. The cancellation indication shall set to "true" indicating to cancel the configured monitoring subscription. The destination URL of the HTTP POST is provided by the SCS/AS during the Monitoring Event Configuration procedure.

If SCEF support the Partial\_group\_cancellation feature and receives an SCEF Reference ID for the event to be deleted from the HSS, with certain MSISDN(s) or External Identifier(s) within the active group based monitor subscription and if the maximum number of reports applies to the monitoring event configuration, the SCEF shall sets the stored number of reports of the indicated UE(s) to maximum number of reports and includes such UE identifier(s) with the cancellation indication in the MonitoringNotification Request to the destination URL provided by the SCS/AS during the Monitoring Event Configuration procedure.

When HSS determines that the last UE in the active group based monitoring subscription has been cancelled, and the SCEF receives an SCEF Reference ID for the event deleted from the HSS with the External Group Identifier, then the SCEF shall delete the group monitoring related resource "Individual Monitoring Event Subscription", send an HTTP POST message including the subscription identifier and a cancellation indication to the identified destination. The cancellation indication shall set to "true" indicating to cancel the configured monitoring subscription. The destination URL of the HTTP POST is provided by the SCS/AS during the Monitoring Event Configuration procedure.

NOTE: The above procedure can be triggered from the HSS due to parameter overwritten by Network Parameter Configuration.

Editor’s Note: The specification of SCS/AS initiated group member cancellation will be further defined.

\*\*\* End of Changes \*\*\*