**3GPP TSG- Meeting #**

**Sydney, , -**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  |  | **CR** |  | **rev** | **1** | **Current version:** |  |  |
|  | | | | | | | | |
| *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:*** | ReportTaskIssue Details related to LI\_T2, LI\_T3, LI\_X2, and LI\_X3 | | | | | | | | | |
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| ***Source to WG:*** |  | | | | | | | | | |
| ***Source to TSG:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** |  | | | | |  | ***Date:*** | | |  |
|  |  | | | |  | |  | | |  |
| ***Category:*** | C |  | | | | | ***Release:*** | | |  |
|  | *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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | The second paragraph of clauses 5.2.5 and 5.2.6 describes a case where the IRI-TF or CC-TF sends a ReportTaskIssue message to the LIPF, but the details for what to include in the ReportTaskIssue message are not specified. In particular, the task report type field coding is not specified. None of the existing codings seem to fit for this particular case. As such, this CR proposes to fill in those details to be included in the ReportTaskIssue message. In addition, the ability for the IRI-TF/CC-TF to report loss of LI\_T2/LI\_T3 connectivity to the LIPF is not specified. This CR includes a proposal for such a capability. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Adds text to clause 5.2.2, 5.2.5, 5.2.6, and new clause 5.X to provide the details for the use of ReportTaskIssue message to be reported by the IRI-TF or CC-TF. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The IRI-TF or CC-TF may not be able to report the error situation in a meaningful way to the LIPF, resulting in potentially longer time to diagnose and address the issue which can impact LEA operations. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.2.2, 5.2.5, 5.2.6, and 5.X | | | | | | | | |
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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 merges CR583, CR585, and CR584.  No ASN.1 or XSD changes are needed | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | s3i230563 | | | | | | | | |

## \*\*\*\* START OF FIRST CHANGE (MAIN DOCUMENT) \*\*\*

5.2.2 Usage for realising LI\_X1

For the purposes of realising LI\_X1 between the LIPF and a POI, MDF or TF, the LIPF plays the role of the ADMF as defined in ETSI TS 103 221-1 [7] reference model (clause 4.2), and the POI, MDF or TF plays the role of the NE.

In general, and unless otherwise specified, the ADMF shall:

- When the provisioning of an IRI-POI/IRI-TF/MDF2 is needed to meet the requirements of the warrant, send an ActivateTask (and subsequent ModifyTask if/as needed) with the DeliveryType set to "X2Only" and the ListOfDIDs containing at least one DID for an X2 or LI\_HI2 delivery destination over LI\_X1 to each of the relevant functions.

- When the provisioning of a CC-POI/CC-TF/MDF3 is needed to meet the requirements of the warrant, send an ActivateTask (and subsequent ModifyTask if/as needed) with the DeliveryType set to "X3Only" and the ListOfDIDs containing at least one DID for X3 or LI\_HI3 delivery destination over LI\_X1 to each of the relevant functions.

When both of the above are required to meet the requirements of the warrant, the ADMF shall send each independently to each relevant function.

When it is required to cease interception, the ADMF shall send a DeactivateTask message to each relevant function, unless the Task has already been removed by other means (e.g. by the use of the ImplicitDeactivationAllowed flag, see ETSI TS 103 221-1 [7] clause 6.2.1.2).

Other deployments compliant with ETSI TS 103 221-1 [7] may be used subject to local agreement.

When the IRI-TF, CC-TF, or MDF2/MDF3 are required to send a ReportTaskIssue message to the LIPF, the following requirements apply.

- The task report type shall be coded to "Non-Terminating fault"

- For the case of triggered POI receiving an error in the answer to a triggering message, the error code 1100 shall be included

- For the case of loss of LI\_T2 connectivity, the error code 1101 shall be included

- For the case of loss of LI\_T3 connectivity, the error code 1102 shall be included

- For the case of deactivated XID received in LI\_X2 data, the error code 1103 shall be included; the NEID should be included in the TaskIssueDetails field.

- For the case of deactivated XID received in LI\_X3 data, the error code 1104 shall be included; the NEID should be included in the TaskIssueDetails field.

**Table 5.2.2-1: Task Error Codes**

|  |  |
| --- | --- |
| **Error Code** | **Error Description** |
| 1100 | Error Response to Triggering Message |
| 1101 | Loss of LI\_T2 connectivity |
| 1102 | Loss of LI\_T3 connectivity |
| 1103 | Invalid XID in LI\_X2 data |
| 1104 | Invalid XID in LI\_X3 data |

## \*\*\*\* START OF SECOND CHANGE (MAIN DOCUMENT) \*\*\*

5.2.5 Usage for realising LI\_T2

For the purposes of realising LI\_T2 between an IRI-TF and a triggered IRI-POI, the IRI-TF plays the role of the "ADMF" as defined in the ETSI TS 103 221-1 [7] reference model (clause 4.2), and the triggered IRI-POI plays the role of the "NE".

The CC-TF shall send a ReportTaskIssue message to the LIPF, as described in clause 5.2.2, for the following cases:

- In case the IRI-TF receives from the triggered IRI-POI an error in the answer to a triggering message; if the error resulted in the failure of LI, this case shall not impact the target's or other users' services.

- In case the IRI-TF detects that it has lost LI\_T2 connectivity to the triggered IRI-POI.

Unless otherwise specified, an IRI-TF shall set the Product ID field in any ActivateTask or ModifyTask message issued to a triggered IRI-POI (see ETSI TS 103 221-1 [7] clause 6.2.1.2). The IRI-TF shall set the Product ID to the XID of the Task object associated with the interception at the IRI-TF in order to allow correlation of LI product at the MDF2.

Unless otherwise specified, the TF shall include the MDF2 as the X2 delivery destination in the trigger sent using the ActivateTask/ModifyTask with "X2Only".

When the IRI-TF determines that it is required to remove a Task at a particular IRI-POI (e.g. having detected the end of a session) it shall send a DeactivateTask message for the relevant Task to that IRI-POI, unless the Task has already been removed by other means (e.g. by the use of the ImplicitDeactivationAllowed flag, see ETSI TS 103 221-1 [7] clause 6.2.12).

When the IRI-TF receives a DeactivateTask message or ModifyTask message from the LIPF, the IRI-TF shall send DeactivateTask or ModifyTask messages to all applicable triggered IRI-POIs for all tasks associated to the Task object in the message from the LIPF.

When the IRI-TF reports the status of a Task via a GetTaskDetailsResponse or GetAllDetailsResponse, the IRI-TF shall also report the details of each 'delegated' Task that the IRI-TF is maintaining at an IRI-POI as a result of that Task. The details are given using the DelegatedTaskStatus structure described in Table 5.2.5-1 below, which is placed in the TaskStatusExtensions element of the TaskStatus structure in the response (see ETSI TS 103 221-1 [7] clause 6.4.2.2).

**Table 5.2.5-1: DelegatedTaskStatus definition**

|  |  |  |
| --- | --- | --- |
| **ETSI TS 103 221-1 field name** | **Description** | **M/C/O** |
| ListOfDelegatedTasks | List of DelegatedTask structures (see Table 5.2.5-2). | M |

**Table 5.2.5-2: DelegatedTask definition**

|  |  |  |
| --- | --- | --- |
| **ETSI TS 103 221-1 field name** | **Description** | **M/C/O** |
| NEID | NE Identifier (see ETSI TS 103 221-1 [7] clause 6.1) of the triggered POI where the TF is maintaining the relevant Task. | M |
| TaskDetails | Contains a copy of the relevant Task, as maintained by the TF at the triggered POI. | M |
| TaskStatus | Copy of the last TaskStatus information received from the triggered POI regarding the relevant Task, if available. | C |
| LastTaskStatusTime | Time at which the TaskStatus information was received. Shall be present if TaskStatus is supplied. | C |

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## \*\*\*\* START OF THIRD CHANGE (MAIN DOCUMENT) \*\*\*

5.2.6 Usage for realising LI\_T3

For the purposes of realising LI\_T3 between a CC-TF and a triggered CC-POI, the CC-TF plays the role of the "ADMF" as defined in the ETSI TS 103 221-1 [7] reference model (clause 4.2), and the triggered CC-POI plays the role of the "NE".

The CC-TF shall send a ReportTaskIssue message to the LIPF, as described in clause 5.2.2, for the following cases:

- In case the CC-TF receives from the triggered CC-POI an error in the answer to a triggering message; if the error resulted in the failure of LI, this case shall not impact the target's or other users' services.

- In case the CC-TF detects that it has lost LI\_T3 connectivity to the triggered CC-POI.

Unless otherwise specified, a CC-TF shall set the Product ID field in any ActivateTask or ModifyTask message issued to a triggered CC-POI (see ETSI TS 103 221-1 [7] clause 6.2.1.2). The CC-TF shall set the Product ID to the XID of the Task object associated with the interception at the CC-TF in order to allow correlation of LI product at the MDF3.

Unless otherwise specified, the TF shall include MDF3 as the X3 delivery destination in the trigger sent using the ActivateTask/ModifyTask with "X3Only".

When the CC-TF determines that it is required to remove a Task at a particular CC-POI (e.g. having detected the end of a session) it shall send a DeactivateTask message for the relevant Task to that CC-POI, unless the Task has already been removed by other means (e.g. by the use of the ImplicitDeactivationAllowed flag, see ETSI TS 103 221-1 [7] clause 6.2.12).

When the CC-TF receives a DeactivateTask message or ModifyTask message from the LIPF, the CC-TF shall send DeactivateTask or ModifyTask messages to all applicable triggered CC-POIs for all tasks associated to the Task object in the message from the LIPF.

When the CC-TF reports the status of a Task via a GetTaskDetailsResponse or GetAllDetailsResponse, the CC-TF shall also report the details of each 'delegated' Task that the CC-TF is maintaining at an CC-POI as a result of that Task, using the mechanism described in clause 5.2.5.

## \*\*\*\* START OF FOURTH CHANGE (MAIN DOCUMENT) \*\*\*

## 5.X Interworking Considerations for LI\_X to LI\_HI

### 5.X.1 General

When the MDF2/3 receives intercept data from different network functions, it decides how and whether to incorporate that information into the intercept information sent over LI\_HI2/3/4. This clause describes the general interworking requirements as well as additional considerations regarding this interworking.

### 5.X.2 LI\_X2 to LI\_HI2

#### 5.X.2.1 General Procedures

When an xIRI is received over LI\_X2 from the IRI-POI, the MDF2 shall generate the corresponding IRI message and deliver it over LI\_HI2 without undue delay. The IRI message shall contain a copy of the relevant record received in the xIRI over LI\_X2. This record may be enriched with any additional information available at the MDF (e.g. additional location information).

#### 5.X.2.2 XID Considerations

As part of LI\_X2 to LI\_HI2 interworking process, the MDF2 shall check and verify that the XID value received in the LI\_X2 information corresponds to an active LIID (i.e. one for which the current LI status is active). If the XID corresponds to an inactive LIID (i.e. one for which the current LI status is not active), the MDF2 shall not deliver the received data to any inactive LIID. If the XID does not correspond to any active LIIDs, the MDF2 shall discard the received LI\_X2 data. In these cases, the MDF2 shall send a ReportTaskIssue message to the LIPF as described in clause 5.2.2, but only for the first packet seen with an inactive LIID. The intent is that there would not be a stream of ReportTaskIssue messages issues, e.g. one for each packet.

### 5.X.3 LI\_X3 to LI\_HI3

#### 5.X.3.1 General Procedures

When an xCC is received over LI\_X3 from the CC-POI, the MDF3 shall generate the corresponding CC message and deliver it over LI\_HI3 without undue delay. The CC message shall contain a copy of the relevant record received in the xCC over LI\_X3. This record may be enriched with any additional information available at the MDF (e.g. additional location information).

#### 5.X.3.2 XID Considerations

As part of LI\_X3 to LI\_HI3 interworking process, the MDF3 shall check and verify that the XID value received in the LI\_X3 information corresponds to an active LIID (i.e. one for which the current LI status is active). If the XID corresponds to one or more inactive LIIDs (i.e. an LIID for which the current LI status is not active), the MDF3 shall not deliver the received data to any inactive LIID. If the XID does not correspond to any active LIIDs, the MDF3 shall discard the received LI\_X3 data. In these cases, for the first such received xCC data the MDF3 shall send a ReportTaskIssue message to the LIPF as described in clause 5.2.2 but only for the first packet seen with an inactive LIID. The intent is that there would not be a stream of ReportTaskIssue messages issues, e.g. one for each packet.

## \*\*\*\* END OF MAIN DOCUMENT CHANGES \*\*\*

## \*\*\*\* START OF CHANGES (ATTACHMENTS) \*\*\*

## \*\*\*\* END OF ALL CHANGES \*\*\*