**3GPP TSG-SA3 Meeting #96-LI *s3i250084***

**Sophia-Antipolis, France, 28th Jan 2025 - 31st Jan 2025**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **33.128** | **CR** | **0703** | **rev** | **1** | **Current version:** | **19.1.0** |  |
|  | | | | | | | | |
| *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:*** | IMS Data Channel Start of Intercept | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | SA3-LI (OTD\_US) | | | | | | | | | |
| ***Source to TSG:*** | SA3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | LI18 | | | | |  | ***Date:*** | | | 2025-01-30 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **A** |  | | | | | ***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)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Currently, the IMS Data Channel LI solution is missing the capablity to report data channel session when a warrant is activted while an active session is ongoing. This CR adds such a capability | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add new record, modify existing text in Mid-Session activation clause | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Solution remains incomplete. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 7.12.4.2.7 (new), 7.12.7.1, 7.12.7.3, attachments ASN.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | | Schema changes for this CR can be found on the Forge:  Merge Request 302: <https://forge.3gpp.org/rep/sa3/li/-/merge_requests/302/diffs?commit_id=a4ec8c36a0ecbb15ecc1aa223f73930d250a5142>  Commit Hash: a4ec8c36a0ecbb15ecc1aa223f73930d250a5142 | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | s3i250008 | | | | | | | | |

**\*\*START OF CHANGES\*\***

**\*\*START OF FIRST CHANGE\*\***

##### 7.12.4.2.7 Start of interception with established IMS Data Channel

The IRI-POI present in the DCSF shall generate the StartOfInterceptionWithEstablishedIMSDataChannel xIRI when interception is activated for a target with a previously established IMS Data Channel.

Accordingly, the IRI-POI present in the DCSF shall generate the StartOfInterceptoinWithEstablishedIMSDataChannel xIRI when the following conditions are met:

- The target match conditions are satisfied as described in clause 7.12.2.8.2.2.

AND

- The IRI-POI in the DCSF detects that the target identifier received over LI\_X1 has an active IMS Data Channel.

Table 7.12.4.2.7-1: Payload for StartOfInterceptionWithEstablishedIMSDataChannel record

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field name | Type | Cardinality | Description | M/C/O |
| targetIdentity | IMPU | 1 | Identity of the target | M |
| callingIdentity | IMPU | 0..1 | Identity of the originator of the session. | C |
| calledIdentities | SEQUENCE OF IMPU | 0..1 | Identity of the terminating party. | C |
| sessionEventNotification | SBIType | 0..1 | Contains the entire payload of the Session Event Notification sent from the DC-AS to the DCSF. Shall be encoded as per TS 29.175 [138] clause 6.1.6.2.2. The SBIReference for this parameter shall be populated with  'TS29175\_Nimsas\_SessionEventControl.yaml#/components/schemas/Nims\_SessionEventControlService' as specified in TS 29.175 [138] clause A.2. | C |
| mediaInstructionData | SBIType | 0..1 | Contains the entire payload of the Media Instruction sent from the DCSF to the DC-AS. The SBIReference for this parameter shall be populated with  'TS29175\_Nimsas\_MediaControl.yaml#/components/schemas/Nimsas\_MediaControlService' as specified in TS 29.175 [138] clause A.3. | C |

**\*\*END OF FIRST CHANGE\*\***

**\*\*START OF SECOND CHANGE\*\***

#### 7.12.7.1 General

When an xIRI is received over LI\_X2 from the IRI-POI, the MDF2 shall send the IRI message over LI\_HI2 according to clause 5.5.2 of the present document without undue delay.

The IRI message shall contain a copy of the relevant record received from LI\_X2. The record may be enriched by other information available at the MDF2 (e.g. additional location information).

The ETSI TS 102 232-1 [9] *@LI-PS-PDU.pSHeader.timeStamp* field shall be set to the time present in the timestamp field of the xIRI.

The *@LI-PS-PDU.payload.iRIPayloadSequence.iRIContents.threeGPP33128DefinedIRI* field of the LI\_HI2 message shall be populated with the BER-encoded *IRIPayload* as described in ETSI TS 102 232-7 [10] clause 15.

IRI messages associated with the same IMS session shall have the same CIN (see ETSI TS 102 232-1 [9] clause 5.2.4).

The *@LI-PS-PDU.payload.iRIPayloadSequence.iRIType* (see ETSI TS 102 232-1 [9] clause 5.2.10) shall be included and coded according to table 7.12.7.1-1.

Table 7.12.7.1-1: IRI type for IRI messages

|  |  |
| --- | --- |
| Record type | IRI Type |
| IMSMessage | REPORT |
| StartOfInterceptionForActiveIMSSession | REPORT |
| IMSCCUnavailable | REPORT |
| IMSDataChannelSetup | REPORT |
| IMSDataChannelModification | REPORT |
| IMSDataChannelTermination | REPORT |
| StartOfInterceptionWithEstablishedIMSDataChannel | REPORT |

When the interception of post dialled digits is required, post dialled digits carried in RTP are reported as described in clause 7.12.11.2.

**\*\*END OF SECOND CHANGE\*\***

**\*\*START OF THIRD CHANGE\*\***

#### 7.12.7.3 Mid-session activation for additional warrants at MDF2

When a new warrant is to be activated on a target identity (i.e. the associated IMS user is already the target of interception due to another warrant), the LIPF may use the same XID for the new warrant (e.g. when there is no need to receive two separate copies of xIRI messages over LI\_X2). In this case, the LIPF may activate the new warrant only at the MDFs using an LI\_X1 ModifyTask message with a new instance of ListOfMediationDetails.

The MDF2 that receives a LI\_X1 ModifyTask with a new instance of ListOfMediationDetails shall be able to generate and deliver the IRI message containing the StartOfInterceptionForActiveIMSSession or the StartOfIntercpetionWithEstablishedIMSDataChannel record to the LEMF as represented in the new instance of ListOfMediationDetails without receiving a corresponding xIRI from the IRI-POI. The MDF2 shall generate and deliver such an IRI message for each of the established IMS session legs to the LEMF represented within the ListOfMediationDetails.

The timeStamp field of the ETSI TS 102 232-1 [9] PSHeader structure shall be set to the present time known to the MDF2.

The payload of the StartOfInterceptionForActiveIMSSession record is specified in table 7.12.4.2-3 (see also clause 7.12.7.1).

The payload of the StartOfInterceptoinWithEstablishedIMSDataChannel record is specified in table 7.12.4.2.7-1.

**\*\*END OF THIRD CHANGE\*\***

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

**\*\*START OF ATTACHMENT CHANGES\*\***

START OF CHANGE 1

---a/33128/r19/TS33128Payloads.asn  
+++b/33128/r19/TS33128Payloads.asn

@@ -304,7 +304,10 @@ XIRIEvent ::= CHOICE

304 304 iMSHSSSubscriberRecordChange [174] IMSHSSSubscriberRecordChange,

305 305

306 306 -- AMF events, see clause 6.2.2.2.14, continued from tag 147

307 - aMFUEContextUpdate [175] AMFUEContextUpdate

307 + aMFUEContextUpdate [175] AMFUEContextUpdate,

308 +

309 + -- IMS events, see clause 7.12.4.2, continued from tag 164

310 + startOfInterceptionWithEstablishedIMSDataChannel [176] StartOfInterceptionWithEstablishedIMSDataChannel

308 311 }

309 312

310 313 -- ==============

@@ -592,7 +595,10 @@ IRIEvent ::= CHOICE

592 595 iMSHSSSubscriberRecordChange [174] IMSHSSSubscriberRecordChange,

593 596

594 597 -- AMF events, see clause 6.2.2.3, continued from tag 147

595 - aMFUEContextUpdate [175] AMFUEContextUpdate

598 + aMFUEContextUpdate [175] AMFUEContextUpdate,

599 +

600 + -- IMS events, see clause 7.12.4.2, continued from tag 164

601 + startOfInterceptionWithEstablishedIMSDataChannel [176] StartOfInterceptionWithEstablishedIMSDataChannel

596 602 }

597 603

598 604 IRITargetIdentifier ::= SEQUENCE

@@ -4728,7 +4734,7 @@ IMSDataChannelModification ::= SEQUENCE

4728 4734 mediaInstructions [5] SBIType OPTIONAL

4729 4735 }

4730 4736

4731 - -- See Clause 7.12.4.2.6 for details of this structure

4737 + -- See clause 7.12.4.2.6 for details of this structure

4732 4738 IMSDataChannelTermination ::= SEQUENCE

4733 4739 {

4734 4740 targetIdentity [1] IMPU,

@@ -4738,6 +4744,16 @@ IMSDataChannelTermination ::= SEQUENCE

4738 4744 mediaInstructionData [5] SBIType OPTIONAL

4739 4745 }

4740 4746

4747 + -- See clause 7.12.4.2.7 for details of this structure

4748 + StartOfInterceptionWithEstablishedIMSDataChannel ::= SEQUENCE

4749 + {

4750 + targetIdentity [1] IMPU,

4751 + callingIdentity [2] IMPU OPTIONAL,

4752 + calledIdentities [3] SEQUENCE OF IMPU OPTIONAL,

4753 + sessionEventNotification [4] SBIType OPTIONAL,

4754 + mediaInstructions [5] SBIType OPTIONAL

4755 + }

4756 +

4741 4757 -- =========

4742 4758 -- IMS CCPDU

4743 4759 -- =========

END OF CHANGE 1

**\*\*END OF ATTACHMENT CHANGES\*\***

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