

CR-Form-v7	
CHANGE REQUEST	
№	33.108 CR CRNum № rev - № Current version: 6.3.0 №

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the № symbols.

Proposed change affects: UICC apps № ME Radio Access Network Core Network

Title:	№ Reporting TEL URL		
Source:	№ SA3 LI		
Work item code:	№ SEC-LI	Date:	№ 19/11/2003
Category:	№ B	Release:	№ Rel-6
	Use <u>one</u> of the following categories: <i>F</i> (correction) <i>A</i> (corresponds to a correction in an earlier release) <i>B</i> (addition of feature), <i>C</i> (functional modification of feature) <i>D</i> (editorial modification)		Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		

Reason for change:	№ In some cases, LEA may not have SIP URL, but only TEL URL. CR032 to Rel-6 33.107 (SP-030479, S3-030352, S3LI03_072r2) introduced alternative IMS LI identifier, TEL URL, which in such cases will be used by ADMF for activating the interception in CSCF. Assuming that in such cases P-CSCF cannot always translates TEL URL into SIP URL the CR offers that CSCF conditionally sends to DF2 either SIP URL or TEL-URL or both, SIP URL and TEL URL. Besides, in principle, in addition to E.164 number TEL URL may contain additional string. Therefore, this CR recommends to define new parameter under partyidentity , tel-url , rather than reuse the existing e164-Format .
Summary of change:	№ This CR offers sending conditionally SIP URL and/or TEL URL to LEMF once interception was activated by TEL URL. Besides, references added and updated, and an editorial change was made to annex B.3.
Consequences if not approved:	№ Ambiguity in the spec.

Clauses affected:	№ 2; 7.2; B.3										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 20px;">Y</td> <td style="width: 20px;">N</td> </tr> <tr> <td>X</td> <td></td> </tr> <tr> <td></td> <td>X</td> </tr> <tr> <td></td> <td>X</td> </tr> </table> Other core specifications	Y	N	X			X		X	№	TS 33.107 (S3LI03_119r1)
Y	N										
X											
	X										
	X										

Other comments: ☹

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] TR 101 331: "Telecommunications security; Lawful Interception (LI); requirements of Law Enforcement Agencies".
- [2] ES 201 158: "Telecommunications security; Lawful Interception (LI); Requirements for network functions".
- [3] ETR 330: "Security Techniques Advisory Group (STAG); A guide to legislative and regulatory environment".
- [4] GSM 09.02: "Digital cellular telecommunications system (Phase 2+); Mobile Application Part (MAP) specification".
- [5] ITU-T Recommendation X.680: "Specification of Abstract Syntax Notation One (ASN.1)".
- [6] ITU-T Recommendation X.690: "Specification of basic encoding rules for Abstract Syntax Notation One (ASN.1)".
- [7] ITU-T Recommendation X.880: "Information technology - Remote Operations: Concepts, model and notation".
- [8] ITU-T Recommendation X.882: "Information technology - Remote Operations: OSI realizations - Remote Operations Service Element (ROSE) protocol specification".
- [9] EN 300 940, GSM 04.08: "Digital cellular communications system (Phase 2+); Mobile radio interface layer 3 specification".
- [10] TS 101 509 "Digital cellular telecommunications system (Phase 2+); Lawful interception; Stage 2 (GSM 03.33).
- [11] GSM 03.03: "Digital cellular telecommunications system (Phase 2+); Numbering, addressing and identification".
- [12] GSM 09.60 (EN 301 347): "Digital cellular telecommunications system (Phase 2+); General Packet Radio Service (GPRS); GPRS tunnelling protocol (GTP) across Gn and Gp Interface".
- [13] STD 9 "File Transfer Protocol (FTP)", October 1985.
- [14] GSM 12.15 "3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; Telecommunication Management; Charging & Billing; GSM call and event data for the Packet Switched (PS) domain)".
- [15] STD0005 "Internet Protocol".
- [16] STD0007 "Transmission Control Protocol".
- [17] 3GPP TS 29.060 "GPRS Tunnelling Protocol".
- [18] 3GPP TS 33.106 "Lawful Interception Requirements".
- [19] 3GPP TS 33.107 "Lawful Interception Architecture and Functions".

- [20] 3GPP TS 23.107 "QoS Concepts and Architecture".
- [21] 3GPP TS 24.008: "3GPP Technical Specification Group Core Network; Mobile radio interface layer 3 specification".
- [22] ES 201 671 version 2.1.1: "Handover Interface for the lawful interception of telecommunications traffic".
- [23] J-STD-25-A: "Lawfully Authorized Electronic Surveillance".
- [24] ETSI TS 101 671 version 2.3.1: "Handover Interface for the lawful interception of telecommunications traffic".
- [25] 3GPP TS 23.003 "3rd Generation Partnership Project; Technical Specification Group Core Network; Numbering, addressing, and identification".
- [26] RFC ~~2543~~[3261](#): "SIP: Session Initiation Protocol".
- [27] RFC 1006: "ISO Transport Service on top of the TCP".
- [28] RFC 2126: "ISO Transport Service on top of TCP (ITOT)".
- [29] ITU T Recommendation Q.763: "Formats and Codes of the ISDN User Part of Signalling System No. 7".
- [30] ETSI EN 300 356 (all parts): "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 for the international interface".
- [31] ETSI EN 300 403-1 (V1.2.2): "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Signalling network layer for circuit-mode basic call control; Part 1: Protocol specification [ITU-T Recommendation Q.931 (1993), modified]".
- [32] ETSI EN 300 286-1: "Integrated Services Digital Network (ISDN); User-to-User Signalling (UUS) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".
- [33] ITU-T Recommendation Q.763: "Signalling System No.7 - ISDN User Part formats and codes".
- [34] ITU-T Recommendation Q.931: "ISDN user-network interface layer 3 specification for basic call control".
- [35] 3GPP TS 29.002: "3rd Generation Partnership Project; Technical Specification Group Core Network; Mobile Application Part (MAP) specification".
- [36] [RFC 2806: URLs for Telephone Calls.](#)

***** **Next Modification** *****

7.2 IRI for IMS

In addition, information on non-transmission related actions of a target constitute IRI and is sent via HI2, e.g. information on subscriber controlled input.

The intercept related information (IRI) may be subdivided into the following categories:

1. Control information for HI2 (e.g. correlation information).
2. Basic data context information, for standard data transmission between two parties (e.g. SIP-message).

For each event, a Record is sent to the LEMF, if this is required. The following table gives the mapping between event type received at DF2 level and record type sent to the LEMF.

Table 7.1: Mapping between IMS Events and HI2 Records Type

Event	IRI Record Type
SIP-Message	REPORT

A set of information is used to generate the record. The records used transmit the information from mediation function to LEMF. This set of information can be extended in the CSCF or DF2 MF, if this is necessary in a specific country. The following table gives the mapping between information received per event and information sent in records.

Table 7.2: Mapping between IMS Events Information and IRI Information

Parameter	Description	HI2 ASN.1 parameter
Observed SIP URL	Observed SIP URL	partyInformation (sip-url)
<u>Observed TEL URL</u>	<u>Observed TEL URL</u>	<u>partyInformation (tel-url)</u>
Event type	IMS Event	iMSevent
Event date	Date of the event generation in the CSCF	timeStamp
Event time	Time of the event generation in the CSCF	
Network identifier	Unique number of the intercepting CSCF	networkIdentifier
Correlation number	Unique number for each PDP context delivered to the LEMF, to help the LEA, to have a correlation between each PDP Context and the IRI.	gPRSCorrelationNumber
Lawful interception identifier	Unique number for each lawful authorization.	lawfulInterceptionIdentifier
SIP message	Whole SIP message	sIPMessage

NOTE: LIID parameter must be present in each record sent to the LEMF.

7.2.1 Events and information

This clause describes the information sent from the Delivery Function (DF) to the Law Enforcement Monitoring Facility (LEMF) to support Lawfully Authorized Electronic Surveillance (LAES). The information is described as records and information carried by a record. This focus is on describing the information being transferred to the LEMF.

The IRI events and data are encoded into records as defined in the Table 7-1 Mapping between IMS Events and HI2 Records Type and Annex B.3 Intercept related information (HI2) [1]. IRI is described in terms of a 'causing event' and information associated with that event. Within each IRI Record there is a set of events and associated information elements to support the particular service.

The communication events described in Table 7-1: Mapping between the IMS Event and HI2 Record Type and Table 7-2: Mapping between IMS Events Information and IRI Information convey the basic information for reporting the disposition of a communication. This clause describes those events and supporting information.

Each record described in this clause consists of a set of parameters. Each parameter is either:

- mandatory (M) - required for the record,
- conditional (C) - required in situations where a condition is met (the condition is given in the Description), or
- optional (O) - provided at the discretion of the implementation.

The information to be carried by each parameter is identified. Both optional and conditional parameters are considered to be OPTIONAL syntactically in ASN.1 Stage 3 descriptions. The Stage 2 inclusion takes precedence over Stage 3 syntax.

Table 7.3: SIP-Message REPORT Record

Parameter	MOC	Description/Conditions
observed SIP-URL	CM	SIP URL of the interception target (if available).
observed TEL-URL	C	TEL URL of the interception target (if available).
event type	M	Provide IMS event type.
event date	M	Provide the date and time the event is detected.
event time		
network identifier	M	Shall be provided.
lawful intercept identifier	M	Shall be provided.
correlation number	C	If available and not included in the SIP-message
SIP message	M	The relevant SIP message

***** Next Modification *****

ASN.1 description of IRI (HI2 interface)

```

PartyInformation ::= SEQUENCE
{
  party-Qualifier [0] ENUMERATED
  {
    gPRS-Target(3),
    ...
  },
  partyIdentity [1] SEQUENCE
  {
    imei [1] OCTET STRING (SIZE (8)) OPTIONAL,
      -- See MAP format [4]

    imsi [3] OCTET STRING (SIZE (3..8)) OPTIONAL,
      -- See MAP format [4] International Mobile
      -- Station Identity E.212 number beginning with Mobile Country Code

    msISDN [6] OCTET STRING (SIZE (1..9)) OPTIONAL,
      -- MSISDN of the target, encoded in the same format as the AddressString
      -- parameters defined in MAP format document ref [4], § 14.7.8

    e164-Format [7] OCTET STRING (SIZE (1 .. 25)) OPTIONAL,
      -- E164 address of the node in international format. Coded in the same format as
      -- the calling party number parameter of the ISUP (parameter part:[5])

    sip-url [8] OCTET STRING OPTIONAL,
      -- See [26]RFC-2543

    ...
    tel-url [9] OCTET STRING OPTIONAL,
      -- See [36]
  },

  services-Data-Information [4] Services-Data-Information OPTIONAL,
    -- This parameter is used to transmit all the information concerning the
    -- complementary information associated to the basic data call
  ...
}
    
```