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Lawful Interception (LI);
Handover Interface and
Service-Specific Details (SSD) for IP delivery;
Part 7: Service-specific details for Mobile Services

Reference
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Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee Lawful Interception (LI).

The present document is part 7 of a multi-part deliverable. Full details of the entire series can be found in part 1 [2].

Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the ETSI Drafting Rules (Verbal forms for the expression of provisions).

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Introduction

The ETSI TS 102 232 [i.1] series of standards aims to provide a common delivery interface for lawfully-intercepted material from a wide range of services. The aim of the present document is to increase the range of services to which the ETSI TS 102 232 [i.1] interface applies, by including services from 3GPP TS 33.108 [3] and 3GPP TS 33.128 [6] within the ETSI TS 102 232 [i.1] delivery framework.

1 Scope

Introduction

The present document specifies an approach for the handover of the lawfully-intercepted information that is defined in the two standards: 3GPP TS 33.108 [3] and 3GPP TS 33.128 [6]. The present document uses the handover techniques defined in ETSI TS 102 232-1 [2]. In this way, the present document allows additional services to be delivered through a common interface.

3GPP TS 33.108

The scope of the present document includes the handover of lawfully-intercepted information from the following parts of 3GPP TS 33.108 [3]:

- Intercept Related Information (IRI) and the Content of Communication (CC) from the mobile circuit-switched domain (3GPP TS 33.108 [3], clause 5).
- IRI and CC from the mobile packet-switched domain (3GPP TS 33.108 [3], clause 6).
- IRI and CC from the multi-media domain (3GPP TS 33.108 [3], clause 7).
- IRI and CC from the EPS domain (3GPP TS 33.108 [3], clause 10).
- IRI and CC from the IMS Conference domain (3GPP TS 33.108 [3], clause 11).
- IRI and CC from the IMS-based VoIP domain (3GPP TS 33.108 [3], clause 12).
- IRI from the Proximity Services domain (3GPP TS 33.108 [3], clause 13).
- IRI and CC from the Group Communication System Enablers domain (3GPP TS 33.108 [3], clause 14).

The present document does not override or supersede any specifications or requirements in 3GPP TS 33.108 [3].

3GPP TS 33.128

The scope of the present document includes the handover of lawfully-intercepted information in accordance with 3GPP TS 33.128 [6].

2 References

2.1 Normative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

Referenced documents which are not found to be publicly available in the expected location might be found at https://docbox.etsi.org/Reference/.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

The following referenced documents are necessary for the application of the present document.

[1] Void.

[2] ETSI TS 102 232-1: "Lawful Interception (LI); Handover Interface and Service-Specific Details (SSD) for IP delivery; Part 1: Handover specification for IP delivery".

[3] ETSI TS 133 108: "Universal Mobile Telecommunications System (UMTS); LTE; Digital cellular telecommunications system (Phase 2+) (GSM); 3G security; Handover interface for Lawful Interception (LI) (3GPP TS 33.108)".

[4] Void.

[5] Void.

[6] ETSI TS 133 128: "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); LTE; 5G; Security; Protocol and procedures for Lawful Interception (LI); Stage 3 (3GPP TS 33.128)".

[7] ETSI TS 103 221-2: "Lawful Interception (LI); Internal Network Interfaces; Part 2: X2/X3".

2.2 Informative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

[i.1] ETSI TS 102 232 (all parts): "Lawful Interception (LI); Handover Interface and Service-Specific Details (SSD) for IP delivery".

[i.2] ETSI TS 101 671: "Lawful Interception (LI) Handover interface for the lawful interception of telecommunications traffic".

NOTE: ETSI TS 101 671 is in status "historical" and is not maintained.

3 Definition of terms, symbols and abbreviations

3.1 Terms

For the purposes of the present document, the terms given in ETSI TS 102 232-1 [2] and ETSI TS 101 671 [i.2] apply.

3.2 Symbols

Void.

3.3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

ASN.1	Abstract Syntax Notation One
CC	Content of Communication
CC-PDU	Content of Communication Protocol Data Unit
CIN	Communications Identity Number
confLIC	Conference LI Correlation
CR	Change Request
CS	Circuit Switched
EPS	Evolved Packet System
GCSE	Group Communications System Enablers
gcseLIC	Group Communications System Enablers LI Correlation

HI	Handover Interface
IMS	IP Multimedia Subsystem
IP	Internet Protocol
IPID	Interception Point IDentifier
IRI	Intercept Related Information
LI	Lawful Interception
LI_X2	Lawful Interception Internal Interface 2
LI_X3	Lawful Interception Internal Interface 3
MF	Mediation Function (at CSP)
NFID	Network Function Identifier
PDU	Protocol Data Unit
ProSe	Proximity Services
PS	Packet Switched
TC	Technical Committee
TS	Technical Specification
uLIC	UMTS LI Correlation
UMTS	Universal Mobile Telecommunications System
voipLIC	Voice Over IP LI Correlation

4 General

4.1 Approach

The present document forms part 7 of the ETSI TS 102 232 [i.1] family of standards, in that it is a service-specific component of the ETSI TS 102 232-1 [2] framework.

3GPP TS 33.108 [3] and 3GPP TS 33.128 [6] define the interception behaviour that leads to IRI events on the handover interface, for both the packet data domain and circuit switched domain.

4.2 Reference model

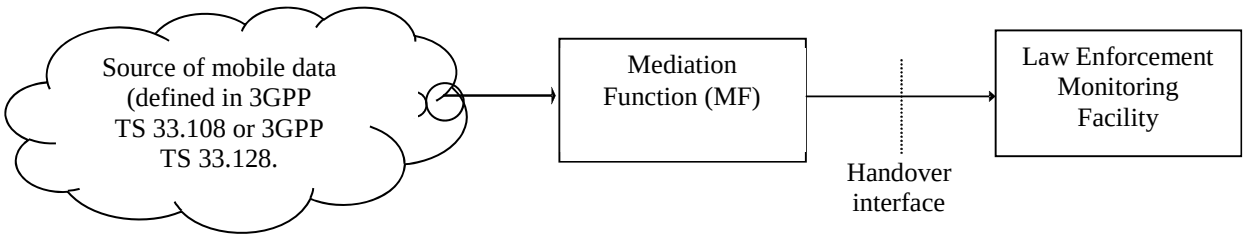

Figure 1: Reference model

5 3GPP handover Headers, data exchange and networks

5.1 Approach

ETSI TS 102 232-1 [2] describes a technique for data exchange, and specifies the headers that shall be associated with the results of interception. The present document follows ETSI TS 102 232-1 [2] regarding headers and data exchange, and demonstrates how the header fields in ETSI TS 102 232-1 [2] can be populated in a direct and straightforward manner using the interception information available in 3GPP TS 33.108 [3] and 3GPP TS 33.128 [6].

5.2 Structures

IRI events from 3GPP TS 33.108 [3], for both circuit and packet switched services as per clauses 5 and 6 in 3GPP TS 33.108 [3], are sent using the uMTSIRI element of IRIContents.

CC from CS domain delivery in IP are sent using the CSvoice-CC-PDU element of CCContents, which is the CSvoice-CC-PDU from 3GPP TS 33.108 [3], containing cSvoiceLIC-header and payload.

CC from these packet switched services are sent using the uMTSCC element of CCContents, which is an OCTET STRING.

Alternatively, subject to national agreement, CC from these packet switched services are sent using the uMTSCC-CC-PDU element of CCContents, which is the CC-PDU from 3GPP TS 33.108 [3], containing the uLIC8header and payload.

Clause 9.2 defines the structures for IRI and CC reporting per clause 10 of 3GPP TS 33.108 [3] for EPS services. Clause 15 defines the structures for IRI and CC reporting of 3GPP TS 33.128 [6] defined EPS services.

CC and IRI PDUs formatted according to 3GPP TS 33.128 [6] are sent using the threeGPP33128DefinedCC and threeGPP33128DefinedIRI elements of CCContents and IRIContents respectively.

6 3GPP handover Intercept Related Information (IRI) and Content of Communication (CC)

6.1 Definition of IRI events and CC

IRI events are defined as per 3GPP TS 33.108 [3] for both circuit and packet switched services as per clauses 5 and 6 in 3GPP TS 33.108 [3].

6.2 IRI format

IRI events are defined as per 3GPP TS 33.108 [3] for both of these circuit and packet switched services. They are sent using the uMTSIRI element of IRIContents.

Fields which are duplicated in the 3GPP TS 33.108 [3] and ETSI TS 102 232-1 [2] structures should be populated consistently in both structures. Clause A.1 gives guidance on mapping between 3GPP TS 33.108 [3] elements and ETSI TS 102 232-1 [2] elements for IRI.

6.3 CC format

CC from these packet switched services are sent using the uMTSCC element CCContents, which is an OCTET STRING. The OCTET STRING will be as defined in the payload element of the CC-PDU structure in 3GPP TS 33.108 [3], clause B.4.

Alternatively, subject to national agreement, CC from these packet switched services are sent using the uMTSCC-CC-PDU element of CCContents, which is the CC-PDU from 3GPP TS 33.108 [3], containing the uLIC-header and payload.

CC from CS domain delivery in IP are sent using the CSvoice-CC-PDU element of CCContents, which is the CSvoice-CC-PDU from 3GPP TS 33.108 [3], containing cSvoiceLIC-header and payload.

The information in the cSvoiceLIC-header element of CSvoice-CC-PDU will be used to populate the header information in the LI-PS-PDU structure of ETSI TS 102 232-1 [2]. Clause A.1 gives guidance on the mapping between these elements.

The information in the uLIC-header element of CC-PDU will be used to populate the header information in the LI-PS-PDU structure of ETSI TS 102 232-1 [2]. Clause A.1 gives guidance on the mapping between these elements.

7 Void

8 Void

9 EPS Headers, data exchange and networks

9.1 Approach

ETSI TS 102 232-1 [2] describes a technique for data exchange, and specifies the headers that shall be associated with the results of interception. The present document follows ETSI TS 102 232-1 [2] regarding headers, data exchange and networks demonstrates how the header fields in ETSI TS 102 232-1 [2] can be populated in a direct and straightforward manner using the interception information available in 3GPP TS 33.108 [3].

9.2 Structures

IRI events from 3GPP TS 33.108 [3], for EPS services, are sent using the ePSIRI element of IRIContents.

CC from EPS services is sent using the ePSCC element of CCContents, which is an OCTET STRING.

Alternatively, subject to national agreement, CC from EPS services are sent using the ePSCC-CC-PDU element of CCContents, which is the CC-PDU from 3GPP TS 33.108 [3], containing the uLIC-header and payload.

10 EPS Intercept Related Information (IRI) and Content of Communication (CC)

10.1 Definition of IRI events and CC

IRI events are defined as per 3GPP TS 33.108 [3].

10.2 IRI format

IRI events for EPS services are defined as per clause 10 of 3GPP TS 33.108 [3]. They are sent using the ePSIRI element of IRIContents.

Fields which are duplicated in the 3GPP TS 33.108 [3] and ETSI TS 102 232-1 [2] structures should be populated consistently in both structures. Clause A.1 gives guidance on mapping between 3GPP TS 33.108 [3] elements and ETSI TS 102 232-1 [2] elements for IRI.

10.3 CC format

CC from EPS is sent using the ePSCC element of CCContents, which is an OCTET STRING. The OCTET STRING will be as defined in the payload element of the CC-PDU structure in 3GPP TS 33.108 [3], clause B.10.

Alternatively, subject to national agreement, CC from EPS services are sent using the ePSCC-CC-PDU element of CCContents, which is the CC-PDU from 3GPP TS 33.108 [3], containing the uLIC-header and payload.

The information in the uLIC-header element of CC-PDU will be used to populate the header information in the LI-PS-PDU structure of ETSI TS 102 232-1 [2]. Clause A.1 gives guidance on the mapping between these elements.