# ETSI TS 102 232-7 V3.6.1 (2019-04)


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

Reference
RTS/LI-00167-7

Keywords
handover, IP, lawful interception, mobile, security

***ETSI***

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

# Contents

# Intellectual Property Rights

## Essential patents

IPRs essential or potentially essential to normative deliverables may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: *"Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards"*, which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (https://ipr.etsi.org/).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

## Trademarks

The present document may include trademarks and/or tradenames which are asserted and/or registered by their owners. ETSI claims no ownership of these except for any which are indicated as being the property of ETSI, and conveys no right to use or reproduce any trademark and/or tradename. Mention of those trademarks in the present document does not constitute an endorsement by ETSI of products, services or organizations associated with those trademarks.

# 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).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

# 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 ANSI/J-STD-025-B [4] 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 ANSI/J-STD-025-B [4]. 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.

**UMTS/GPRS and EPS - 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].

**CDMA2000 - ANSI/J-STD-025-B**

The scope of the present document includes the handover of lawfully-intercepted information from the following parts of ANSI/J-STD-025-B [4]:

- Call identifying information from the mobile circuit-switched domain (ANSI/J-STD-025-B [4], clause 5.4). Call Content (CC) from the mobile circuit-switched domain is not covered by the present document.
- Communication identifying information (CII) and CC from the mobile packet-switched domain (ANSI/J-STD-025-B [4], clause 5.5).

The present document does not override or supersede any specifications or requirements in ANSI/J-STD-025-B [4].

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

NOTE: Periodically ETSI TS 101 671 is published as ETSI ES 201 671. A reference to the latest version of the TS as above reflects the latest stable content from ETSI/TC LI.

[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; 3G security; Handover interface for Lawful Interception (LI) (3GPP TS 33.108)".

[4] TIA/ATIS ANSI/J-STD-025-B (July 2006): "Lawfully Authorized Electronic Surveillance", as amended by ANSI/J-STD-025-B-1 (September 2006): "Lawfully Authorized Electronic Surveillance (LAES) Addendum 1 - Addition of Mobile Equipment IDentifier (MEID)" and by ANSI/J-STD-025-B-2 (April 2007): "Lawfully Authorized Electronic Surveillance (LAES) - Addendum 2 - Support for Carrier Identity".

[5] Public Law 103-414: "Communications Assistance for Law Enforcement Act (CALEA)", US 103rd Congress, 108 STAT. 4279 (October 25, 1994).

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

## 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".

# 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], ETSI TS 101 671 [1] and the following apply:

**call-identifying information:** ANSI/J-STD-025-B [4] states that this term is defined in CALEA Section 102 (2) [5] to be "dialling or signalling information that identifies the origin, direction, destination, or termination of each communication generated or received by a subscriber by means of any equipment, facility, or service of a TSP"

NOTE: This term is always used in expanded format.

## 3.2 Symbols

Void.

## 3.3 Abbreviations

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

| | |
|---|---|
| ASN.1 | Abstract Syntax Notation One |
| ATIS | Alliance for Telecommunications Industry Solutions |
| CC | Content of Communication |

NOTE: This abbreviation is also used by ANSI for the same concept, called "Call Content".

| | |
|---|---|
| CC-PDU | Content of Communication Protocol Data Unit. |
| CII | Communication-Identifying Information |
| 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 |
| GPRS | General Packet Radio Service |
| IMS | IP Multimedia Subsystem |
| IP | Internet Protocol |
| IRI | Intercept Related Information |
| LAES | Lawfully Authorized Electronic Surveillance (Committee of ATIS) |
| LI | Lawful Interception |
| LTE | Long Term Evolution (of UMTS) |
| MF | Mediation Function (at CSP) |
| PDU | Protocol Data Unit |
| ProSe | Proximity Services |
| PS | Packet Switched |
| PTSC | Packet Technologies and Systems Committee (Committee of ATIS) |
| TC | Technical Committee |
| TIA | Telecommunications Industry Association |
| TS | Technical Specification |
| uLIC | UMTS LI Correlation |
| UMTS | Universal Mobile Telecommunication 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 ANSI/J-STD-025-B [4] define the interception behaviour that leads to IRI, Communication-Identifying Information (CII) or call-identifying information events on the handover interface, for both the packet data domain and circuit switched domain.

## 4.2 Reference model

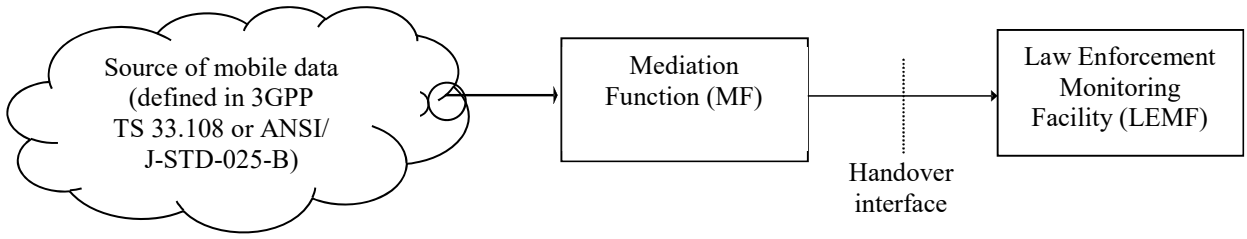


**Figure 1: Reference model**

# 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, 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] and 3GPP TS 33.128 [6].

## 5.2 Structures

IRI events from 3GPP TS 33.108 [3], for both circuit and packet switched services, 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 packet switched services are sent using the uMTSCC element CCContents, which is an OCTET STRING.

Alternatively, subject to national agreement, CC from 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 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].

## 6.2 IRI format

IRI events are defined as per 3GPP TS 33.108 [3] for both 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 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 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 CDMA2000 Headers, data exchange and networks

## 7.1 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. It demonstrates how the ANSI/J-STD-025-B [4] data is to be carried in the corresponding CC and IRI payload fields of ETSI TS 102 232-1 [2] and how the header fields in ETSI TS 102 232-1 [2] shall be populated using the corresponding information from the ANSI/J-STD-025-B [4] data structures.

Permission has been given to ETSI/TC LI by TIA and ATIS to make use of Annex I of the TIA/ATIS joint standard ANSI/J-STD-025-B [4], which contains the ASN.1 code for that standard, in the present document. That Annex I contains the code as prepared in text form by the PTSC LAES committee of ATIS, and subsequently amended by the changes defined by ANSI/J-STD-025-B-1 [4] and by ANSI/J-STD-025-B-2 [4].

## 7.2 Structures

Call-identifying information in ANSI/J-STD-025-B [4], clauses 6.3 and 6.4 for circuit switched services is sent by carrying the imported LAESProtocol element of Laesp-j-std-025-b as lAESProtocol in IRIContents. This contains the LAESMessage parameter that defines the LAES messages.

CII events from ANSI/J-STD-025-B [4], clause 6.5 for packet switched services are sent by carrying the imported CDMA2000LAESMessage element of CDMA2000CIIModule as cDMA2000LAESMessage in IRIContents.

CC for ANSI/J-STD-025-B [4], clause 6.6.2.1 packet switched services is sent by carrying the imported CCIPPacketHeader element of CDMA2000CCModule in CCContents.

# 8 CDMA2000 Communication-Identifying Information (CII), Call-Identifying Information and Call Content (CC)

ETSI TS 102 232-1 [2] fields in PSHeader shall be populated using the corresponding fields from the ANSI/J-STD-025-B [4] data structures as shown in table 1.

**Table 1: Populating the PSHeader**

| ETSI TS 102 232-1 [2] element | Source from ANSI/J-STD-025-B [4] | Comments |
|---|---|---|
| pSHeader.lawfulInterceptionIdentifier | caseIdentity | Same value |
| pSHeader.communicationIdentifier.networkIdentifier.networkElementIdentifier | iapSystemIdentity | Same value |
| pSHeader.timeStamp | timeStamp (see note) | Same value |
| NOTE: The source timestamp is in generalized time format.<br>The optional use of MicroSecondTimeStamp does not apply. | | |

# 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.

# 11 IMS Conference Intercept Related Information (IRI) and Content of Communication (CC)

## 11.1 Definition of IRI events and CC

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

## 11.2 IRI format

IRI events for IMS Conference services are defined as per clause 11 of 3GPP TS 33.108 [3]. They are sent using the confIRI 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.

## 11.3 CC format

CC from IMS Conference services are sent using the Conf-CC-PDU element of CCContents, which is the Conf-CC-PDU from 3GPP TS 33.108 [3], containing the confLIC-header and payload.

The information in the confLIC-header element of Conf-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.

NOTE: Octet string is not provided as it will break evidential use.

# 12 IMS-based VoIP Intercept Related Information (IRI) and Content of Communication (CC)

## 12.1 Definition of IRI events and CC

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

## 12.2 IRI format

IRI events for IMS-based VoIP services are defined as per clause 12 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.

## 12.3 CC format

CC from IMS-based VoIP services are sent using the Voip-CC-PDU element of CCContents, which is the Voip-CC-PDU from 3GPP TS 33.108 [3], containing the voipLIC-header and payload.

The information in the voipLIC-header element of Voip-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.

NOTE: Octet string is not provided as it will break evidential use.

# 13 Proximity Services Intercept Related Information (IRI)

## 13.1 Definition of IRI

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

## 13.2 IRI format

IRI events for Proximity Services (PROSE) are defined as per clause 13 of 3GPP TS 33.108 [3]. They are sent using the proseIRI 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.

# 14 Group Communications System Enablers Intercept Related Information (IRI) and Content of Communication (CC)

## 14.1 Definition of IRI events and CC

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

## 14.2 IRI format

IRI events for Group Communications System Enablers (GCSE) services are defined as per clause 14 of 3GPP TS 33.108 [3]. They are sent using the gcseIRI 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.

## 14.3 CC format

CC from Group Communications System Enablers (GCSE) services are sent using the Gcse-CC-PDU element of CCContents, which is the Gcse-CC-PDU from 3GPP TS 33.108 [3], containing the gcseLIC-header and payload.

The information in the gcseLIC-header element of Gcse-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.

NOTE: Octet string is not provided as it will break evidential use.

# 15 IRI and CC for services defined in 3GPP TS 33.128

## 15.1 Definition of IRI events and CC

IRI and CC events are defined as per 3GPP TS 33.128 [6].

## 15.2 IRI and CC format

3GPP TS 33.128 [6] defines the format for the contents of the threeGPP33128DefinedIRI and threeGPP33128DefinedCC elements for each IRI and CC event.

# Annex A (normative): ASN.1 for IRI and CC

## A.1 Note on integrating ASN.1 structures

### A.1.1 Header field mappings

Table A.1 shows how elements of the ETSI TS 102 232-1 [2] PSHeader structure should be populated from information in the 3GPP TS 33.108 [3] IRI-Parameters structure.

**Table A.1: 3GPP TS 33.108 [3] to ETSI TS 102 232-1 [2] PSHeader mapping**

| ETSI TS 102 232-1 [2] PSHeader element | Source from 3GPP TS 33.108 [3] |
|---|---|
| lawfulInterceptionIdentifier | Copied directly from IRI-Parameters.lawfulInterceptionIdentifier |
| authorizationCountryCode | Supplied directly by the MF |
| communicationIdentifier | See below for individual elements |
| networkIdentifier | See below for individual elements |
| operatorIdentifier | Copied directly from IRI-Parameters.networkIdentifier.operatorIdentifier |
| eTSI671NEID | Copied directly from IRI-Parameters.networkIdentifier Network-Element-Identifier |
| communicationIdentityNumber | See clause A.1.2 |
| deliveryCountryCode | Supplied directly by the MF |
| sequenceNumber | Supplied directly by the MF |
| timeStamp | Copied from IRI-Parameters.timeStamp. This requires a conversion from HI2Operations.TimeStamp to GeneralizedTime |

Table A.2 shows how elements of the ETSI TS 102 232-1 [2] IRIPayload structure should be populated from information in the 3GPP TS 33.108 [3] structures.

**Table A.2: 3GPP TS 33.108 [3] to ETSI TS 102 232-1 [2] IRIPayload mapping**

| ETSI TS 102 232-1 [2] IRIPayload element | Source from 3GPP TS 33.108 [3] |
|---|---|
| iRIType | Inferred from UmtsIRIContent or EpsIRIContent or ConfIRIContent or ProSeIRIContent or GcseIRIContent or UmtsCS-IRIsContent |
| timeStamp | Copied from IRI-Parameters.timeStamp (assuming no aggregation of PDUs) This requires a conversion from HI2Operations.TimeStamp to GeneralizedTime |
| iRIContents | See below for individual elements |
| uMTSIRI | See below for individual elements |
| iRI-Parameters | Copied directly from IRI-Parameters, if handing over packet domain IRI |
| iRI-CS-Parameters | Copied directly from IRI-Parameters, if handing over circuit switched IRI |
| ePSIRI | See below for individual elements |
| iRI-EPS-Parameters | Copied directly from IRI-Parameters, if handing over EPS IRI See note |
| confIRI | See below for individual elements |
| iRI-Conf-Parameters | Copied directly from IRI-Parameters, if handing over CONF IRI |
| proseIRI | See below for individual elements |
| iRI-ProSe-Parameters | Copied directly from IRI-Parameters, if handing over PROSE IRI |
| gcseIRI | See below for individual elements |
| iRI-Gcse-Parameters | Copied directly from IRI-Parameters, if handing over GCSE IRI |
| NOTE: EPS IRI is also used for IMS-based VoIP services. | |

Table A.3 shows how elements of the ETSI TS 102 232-1 [2] PSHeader structure should be populated from information in the 3GPP TS 33.108 [3] CC-PDU structure.

**Table A.3: 3GPP TS 33.108 [3] to ETSI TS 102 232-1 [2] PSHeader mapping**

| ETSI TS 102 232-1 [2] PSHeader element | Source from 3GPP TS 33.108 [3] |
|---|---|
| lawfulInterceptionIdentifier | Copied from CC-PDU.uLIC-header.lIID or Conf-CC-PDU.confLIC-header.lIID or Voip-CC-PDU.voipLIC-header.lIID or Gcse-CC-PDU.gcseLIC-header.lIID or CSvoice-CC-PDU.cSvoiceLIC-header.lIID |
| authorizationCountryCode | Supplied directly by the MF |
| communicationIdentifier | See below for individual elements |
| networkIdentifier | See below for individual elements |
| operatorIdentifier | Supplied directly by the MF (see 3GPP TS 33.108 [3], clause 5.2.4) |
| eTSI671NEID | Supplied directly by the MF (see 3GPP TS 33.108 [3], clause 5.2.4) |
| communicationIdentityNumber | See clause A.1.2 |
| deliveryCountryCode | Supplied directly by the MF |
| sequenceNumber | Supplied directly by the MF |
| timeStamp | Copied from CC-PDU.uLIC-header.timeStamp or Conf-CC-PDU.confLIC-header.timeStamp or Voip-CC-PDU.voipLIC-header.timeStamp or Gcse-CC-PDU.gcseLIC-header.timeStamp or CSvoice-CC-PDU.cSvoiceLIC-header.timeStamp This requires a conversion from HI2Operations.TimeStamp to GeneralizedTime |

Table A.4 shows how elements of the ETSI TS 102 232-1 [2] CCPayload structure should be populated from information in the 3GPP TS 33.108 [3] structures.

**Table A.4: 3GPP TS 33.108 [3] to ETSI TS 102 232-1 [2] CCPayload mapping**

| ETSI TS 102 232-1 [2] CCPayload element | Source from 3GPP TS 33.108 [3] |
|---|---|
| payloadDirection | Copied from CC-PDU.uLIC-header.t-PDU-direction or Conf-CC-PDU.confLIC-header.t-PDU-direction or Voip-CC-PDU.voipLIC-header.t-PDU-direction or Gcse-CC-PDU.gcseLIC-header.t-PDU-direction or CSvoice-CC-PDU.cSvoiceLIC-header.t-PDU-direction This requires a trivial translation between TPDU-direction and PayloadDirection enumerated types |
| timeStamp | Copied from CC-PDU.uLIC-header.timeStamp or Conf-CC-PDU.confLIC-header.timeStamp or Voip-CC-PDU.voipLIC-header.timeStamp or Gcse-CC-PDU.gcseLIC-header.timeStamp or CSvoice-CC-PDU.cSvoiceLIC-header.timeStamp This requires a conversion from HI2Operations.TimeStamp to GeneralizedTime |
| ccContents | See below for individual elements |
| uMTSCC | Bytes copied from CC-PDU.payload |
| uMTSCC-CC-PDU | Copied directly from UMTS CC-PDU (that is UMTS CC-PDU.uLIC-header plus UMTS CC-PDU.payload) |
| ePSCC | Bytes copied from CC-PDU.payload |
| ePSCC-CC-PDU | Copied directly from EPS CC-PDU (that is EPS CC-PDU.uLIC-header plus EPS CC-PDU.payload) |
| confCC-CC-PDU | Copied directly from Conf-CC-PDU (that is Conf-CC-PDU.confLICheader plus Conf-CC-PDU.payload) |
| voipCC-CC-PDU | Copied directly from Voip-CC-PDU (that is Voip-CC-PDU.voipLIC-header plus Voip-CC-PDU.payload) |
| gcseCC-CC-PDU | Copied directly from Gcse-CC-PDU (that is Gcse-CC-PDU.gcseLIC-header plus Gcse-CC-PDU.payload) |
| cSvoice-CC-PDU | Copied directly from CSvoice-CC-PDU (that is CSvoice-CC-PDU. cSvoiceLIC-header plus CSvoice-CC-PDU.payload) |

### A.1.2 CIN allocation

CIN allocation follows ETSI TS 102 232-1 [2], clause 5.2.4. The CIN extension field may be used, if required, using the CorrelationValues field as described in 3GPP TS 33.108 [3].

# Annex B (informative): Change request history

| Status of the present document: ETSI TS 102 232-7<br>Service-specific details for Mobile Services | | |
|---|---|---|
| **TC LI approval Date** | **Version** | **Remarks** |
| January 2008 | 2.1.1 | First publication of the TS after approval by ETSI/TC LI#17 (22-24 January 2008, Como)<br><br>Rapporteur of version 2.1.1 is Chris White (GTEN) |
| February 2011 | 2.2.1 | Included Change Request:<br>ETSI TS 102 232-07 CR001 (Cat B) Addition of Service-Specific Details for CDMA2000<br>This CR was approved by TC LI#26 (15-17 February 2011, Sophia Antipolis)<br><br>Version 2.2.1 prepared by Peter van der Arend (Vodafone) (Chairman TC LI)<br>Rapporteur of this specification is Mark Shepherd (NTAC) |
| May 2012 | 3.1.1 | Included Change Request:<br>ETSI TS 102 232-07 CR002 (Cat B) Introduce changes to accommodate EPS<br>This CR was approved by TC LI#30 (14-16 May 2012, Amsterdam)<br><br>Version 3.1.1 prepared by Peter van der Arend (Vodafone) (Chairman TC LI)<br>Rapporteur of this specification is Mark Shepherd (NTAC) |
| June 2013 | 3.2.1 | Included Change Request:<br>ETSI TS 102 232-07 CR003 (Cat B) to preserve the uLIC header<br>This CR was approved by TC LI #33 (11-13 June 2013, Joensuu)<br><br>Version 3.2.1 prepared by the Rapporteur |
| February 2016 | 3.3.1 | Included Change Request:<br>ETSI TS 102 232-07 004r3 (Cat B) to accommodate the delivery of the 3GPP IMS-based VoIP and IMS Conference Services and Proximity Services (ProSe) and Group Communications System Enablers specified in 3GPP TS 33.108 [3], clauses 11, 12, 13 and 14<br>This CR was approved by TC LI #41 (10-12 Feb 2016, Sophia Antipolis)<br><br>Version 3.3.1 prepared by the Rapporteur |
| February 2017 | 3.4.1 | Included Change Request:<br>ETSI 102 232 CR005r1 (Cat F). Table A.4 modified in order to be aligned with clause 12.3 C.C. format<br><br>This CR was approved by TC LI#44 (30 Jan – 1 Feb, Sophia Antipolis) |
| February 2018 | 3.5.1 | Included Change Request:<br>ETSI 102 232 CR006r3 (Cat B). modification to take account of changes from SA3LI#67 to have an IP-based CC handover interface<br><br>This CR was approved by TC LI#47 (5-7 February 2018, New Delhi), version prepared by the Rapporteur |
| February 2019 | 3.6.1 | Included Change Request:<br>ETSI TS 102232 CR007 (Cat B): Inclusion of 33.128 services in part 7<br><br>This CR was approved by TC LI#50 (5-7 February 2019, Dubai), version prepared by the Rapporteur. |

# History

| Document history | | |
|---|---|---|
| V2.1.1 | March 2008 | Publication (Historical) |
| V2.2.1 | March 2011 | Publication (Historical) |
| V3.1.1 | June 2012 | Publication |
| V3.2.1 | July 2013 | Publication |
| V3.3.1 | March 2016 | Publication |
| V3.4.1 | March 2017 | Publication |
| V3.5.1 | April 2018 | Publication |
| V3.6.1 | April 2019 | Publication |