

# ETSI TS 102 657 V1.28.1 (2021-12)



## **Lawful Interception (LI); Retained data handling; Handover interface for the request and delivery of retained data**

ETSI TS 102 657 V1.28.1 (2021-12)

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# Foreword

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

The ASN.1 module and XML schema are also available as an electronic attachment to the original document from the ETSI site (see details in clause A.3.1.2).

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# 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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# 1 Scope

The present document is based on requirements from ETSI TS 102 656 [2].

The present document contains handover requirements and a handover specification for the data that is identified in national legislations on Retained Data.

The present document considers both the requesting of retained data and the delivery of the results.

The present document defines an electronic interface. An informative annex describes how this interface may be adapted for manual techniques. Apart from in annex I, the present document does not consider manual techniques.

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# 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.

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

- [1] Void.
- [2] ETSI TS 102 656: "Lawful Interception (LI); Retained Data; Requirements of Law Enforcement Agencies for handling Retained Data".
- [3] 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".
- [4] ISO 3166-1: "Codes for the representation of names of countries and their subdivisions -- Part 1: Country code".
- [5] ISO 4217: "Codes for the representation of currencies".
- [6] 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.

- [7] ETSI EN 300 356 (all parts): "Integrated Services Digital Network (ISDN); Signalling System No.7 (SS7); ISDN User Part (ISUP) version 4 for the international interface".
- [8] ETSI TS 100 974: "Digital cellular telecommunications system (Phase 2+); Mobile Application Part (MAP) specification (3GPP TS 09.02)".
- [9] ETSI TS 124 008: "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); LTE; 5G; Mobile radio interface Layer 3 specification; Core network protocols; Stage 3 (3GPP TS 24.008)".
- [10] Void.
- [11] 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)".

- [12] ETSI TS 101 109 (V7.2.0): "Digital cellular telecommunications system (Phase 2+); Universal Geographical Area Description (GAD) (3GPP TS 03.32 version 7.2.0 Release 1998)".
  - [13] FIPS PUB 186-4: "Digital Signature Standard (DSS)".
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- [43] ETSI TS 129 571: "5G; 5G System; Common Data Types for Service Based Interfaces; Stage 3 (3GPP TS 29.571)".
- [44] ETSI TS 136 413: "LTE; Evolved Universal Terrestrial Radio Access Network (E-UTRAN); S1 Application Protocol (S1AP) (3GPP TS 36.413)".
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- [48] ETSI TS 129 520: "5G; 5G System; Network Data Analytics Services; Stage 3 (3GPP TS 29.520)".
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- [52] Recommendation ITU-T E.164: "The international public telecommunication numbering plan".
- [53] GSMA SGP.02: "Remote Provisioning Architecture for Embedded UICC Technical Specification".
- [54] Recommendation ITU-T G.984.1: "Gigabit-capable passive optical networks (GPON): General characteristics".

- [55] IETF RFC 7315: "Private Header (P-Header) Extensions to the Session Initiation Protocol (SIP) for the 3GPP".

## 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.

Not applicable.

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## 3 Definition of terms, symbols and abbreviations

### 3.1 Terms

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

**Authorized Organization (AO):** any authority legally authorized to request or receive retained data e.g. a Law Enforcement Agency

**Handover Interface A (HI-A):** administrative handover interface comprising requests for information and their responses

**Handover Interface B (HI-B):** data handover interface comprising the retained data transmission of information

**issuing authority:** any entity possessing the necessary jurisdiction and authority pursuant to law to compel a service provider to deliver retained subscriber information or traffic data specified in a query

**lawful authorization:** permission granted to an Authorized Organization under certain conditions to request specified telecommunications retained data and requiring co-operation from a network operator/service provider/access provider

NOTE: Typically, this refers to a warrant or order issued by a lawfully authorized body.

**location information:** information relating to the geographic, physical or logical location of an identity relating to an interception subject

**number:** any address (E.164, IP, email, URI) used for routing in a network or in a service on a user level or network/service level

**receiving authority:** any entity possessing the necessary authority pursuant to law and the technical means to receive retained subscriber information or traffic data delivered by a service provider

**request:** legal requirement for a Communications Service Provider (CSP) to disclose retained data in accordance with relevant national law

**response to request of information:** response from the CSP to the authorized organization acknowledging or rejecting a request for information

**retained data record:** set of data elements for a specific subscriber/user related to a specific service transaction

**service transaction:** instance of a service given by a CSP to a subscriber/user

**service transaction record:** set of data elements describing a service transaction (details to be determined)

**transmission of information:** transmission of retained data from the CSP to the receiving authority

## 3.2 Symbols

Void.

## 3.3 Abbreviations

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

|        |                                                      |
|--------|------------------------------------------------------|
| ACK    | ACKnowledge                                          |
| ADSL   | Asymmetric Digital Subscriber Line                   |
| AMF    | Access and Mobility management Function              |
| AMFID  | AMF IDentifier                                       |
| AO     | Authorized Organization                              |
| APN    | Access Point Name                                    |
| ASCII  | American Standard Code for Information Interchange   |
| ASN    | Abstract Syntax Notation                             |
| BER    | Basic Encoding Rules                                 |
| BIC    | Business Identifier Code                             |
| CAN    | Connectivity Access Network                          |
| CGI    | Cell Global Identity                                 |
| CHF    | CHarging Function                                    |
| CPE    | Customer Premises Equipment                          |
| CS     | Circuit Switched                                     |
| CSP    | Communications Service Provider                      |
| CSPID  | CSP IDentifier                                       |
| DR     | Data Retention                                       |
| DSA    | Digital Signature Algorithm                          |
| DSL    | Digital Subscriber Line                              |
| DSS    | Digital Signature Standard                           |
| DVD    | Digital Versatile Disc or Digital Video Disc         |
| eCGI   | e-UTRAN Cell Global ID                               |
| EID    | Embedded (UICC) IDentifier                           |
| EMS    | Enhanced Messaging Service                           |
| EN-DC  | E-UTRA-NR Dual Connectivity                          |
| EPC    | Enhanced Packet Core                                 |
| EPS    | Evolved Packet System                                |
| eUICC  | embedded UICC                                        |
| FFS    | For Further Study                                    |
| FIPS   | Federal Information Processing Standard              |
| GCI    | Global Cable Identifier                              |
| GGSN   | Gateway GPRS Support Node                            |
| GLI    | Global Line Identifier                               |
| GPRS   | General Packet Radio Service                         |
| GPSI   | Generic Public Subscription Identifier               |
| GSM    | Global System for Mobile communications              |
| GW     | GateWay                                              |
| HI     | Handover Interface                                   |
| HI-A   | Handover Interface A                                 |
| HI-B   | Handover Interface B                                 |
| HTTP   | HyperText Transfer Protocol                          |
| HTTPS  | HyperText Transfer Protocol over Secure Socket Layer |
| IANA   | Internet Assigned Numbers Authority                  |
| IBAN   | International Banking Account Number                 |
| ICCID  | Integrated Circuit Card ID                           |
| ID     | IDentifier                                           |
| IE     | Information Element                                  |
| IEI    | Information Element Identifier                       |
| IMAP   | Internet Message Access Protocol                     |
| IMEI   | International Mobile Equipment Identity              |
| IMEISV | IMEI Software Version                                |
| IMPI   | IP Multimedia Private Identity                       |

|        |                                          |
|--------|------------------------------------------|
| IMS    | IP Multimedia Subsystem                  |
| IMSI   | International Mobile Subscriber Identity |
| IP     | Internet Protocol                        |
| IPSec  | Internet Protocol Security               |
| IRI    | Intercept Related Information            |
| ISDN   | Integrated Services Digital Network      |
| ISUP   | ISDN User Part                           |
| LAN    | Local Area Network                       |
| LEA    | Law Enforcement Agency                   |
| MAC    | Media Access Control                     |
| MCC    | Mobile Country Code                      |
| ME     | Mobile Equipment                         |
| MF-B   | Mediation Function B                     |
| MME    | Mobility Management Entity               |
| MMS    | Multimedia Messaging Service             |
| MNC    | Mobile Network Code                      |
| MS     | Mobile Station                           |
| MSC    | Mobile Switching Centre                  |
| MSISDN | Mobile Subscriber ISDN number            |
| MSN    | Multiple Subscriber Number               |
| NA     | Network Access                           |
| NAI    | Network Access Identifier                |
| NAS    | Network Access Server                    |
| NAT    | Network Address Translation              |
| NCGI   | NR Cell Global Identity                  |
| NCI    | NR Cell Identity                         |
| NF     | Network Function                         |
| NGAP   | Next Generation Application Protocol     |
| NR     | New Radio                                |
| PAT    | Port Address Translation                 |
| PDN    | Public Data Network                      |
| PDP    | Packet Data Protocol                     |
| PDU    | Protocol Data Unit                       |
| PEI    | Permanent Equipment Identifier           |
| PLMN   | Public Land Mobile Network               |
| PPP    | Point-to-Point Protocol                  |
| PS     | Packet Switched                          |
| PSTN   | Public Switched Telephone Network        |
| PUK    | Personal Unblocking Key                  |
| RAI    | Routing Area Identifier                  |
| RAN    | Radio Access Network                     |
| RAT    | Radio Access Technology                  |
| RCI    | Radio Configuration Identifier           |
| RD     | Retained Data                            |
| RDHI   | Retained Data Handover Interface         |
| SAI    | Service Area Identifier                  |
| SC     | SMS Centre                               |
| SD     | Slice Differentiator                     |
| SDP    | Session Description Protocol             |
| SGSN   | Serving GPRS Support Node                |
| SHA    | Secure Hash Algorithm                    |
| SIM    | Subscriber Identity Module               |
| SIP    | Session Initiation Protocol              |
| SMF    | Session Management Function              |
| SMS    | Short Message Service                    |
| SMTP   | Simple Mail Transfer Protocol            |
| SUPI   | Subscriber Permanent Identifier          |
| TAI    | Tracking Area Identity                   |
| TCP    | Transmission Control Protocol            |
| TL     | Latency Time                             |
| TLS    | Transport Layer Security                 |
| TR     | Time of the Request                      |