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Zakonito prestrezanje (LI) - Izročilni vmesnik za zakonito prestrezanje telekomunikacijskega prometa

Lawful Interception (LI) - Handover interface for the lawful interception of telecommunications traffic

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Lawful Interception (LI); Handover interface for the lawful interception of telecommunications traffic

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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
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Foreword

This ETSI Standard (ES) has been produced by ETSI Technical Committee Lawful Interception (LI).

Modal verbs terminology

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Introduction

References within the main body of the present document are made if applicable to the 3GPP specification number with in square brackets the reference number as listed in clause 2. In clause 2 "References" the corresponding ETSI specification number is indicated with a reference to the 3GPP specification number. 3GPP specifications are available faster than the equivalent ETSI specifications.

The present document is made historical and is therefore no longer maintained or revised. It has been superseded by ETSI TS 102 232 (all parts) [i.2] and ETSI TS 103 280 [i.3].

1 Scope

The present document is step 3 of a three-step approach to describe a generic Handover Interface (HI) for the provision of lawful interception from a Network Operator, an Access Provider or a Service Provider (NWO/AP/SvP) to the Law Enforcement Agencies (LEAs). The provision of lawful interception is a requirement of national law, which is usually mandatory for the operation of any telecommunication service.

Step 1 contains the requirements for lawful interception from a users (LEAs) point of view and is published in ETSI TS 101 331 [1].

Step 2 describes the derived network functions and the general architecture (or functional model) and is published in ETSI ES 201 158 [2].

The present document specifies:

- the *generic flow of information* as well as the procedures and information elements, which are applicable to any future telecommunication network or service;
- the network/service specific protocols relating to the provision of lawful interception at the Handover Interface (HI), for the following networks/services:
  - switched circuit; and
  - packet data.

The technologies covered in the present document are: GSM, TETRA, GPRS, ISDN, PSTN, fixed NGN (including PSTN/ISDN emulation) and fixed IMS PSTN simulation.

NOTE: As new networks and/or services are developed, the present document will be expanded as the relevant standards become available.

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 101 331: "Lawful Interception (LI); Requirements of Law Enforcement Agencies".

[2] ETSI ES 201 158: "Telecommunications security; Lawful Interception (LI); Requirements for network functions".

[3] Void.

[4] Void.

[5] 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".

[6] ETSI EN 300 403-1 (V1.3.2): "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]".

NOTE: Reference [6] is specific, because the format of the sub parameters "dSS1-Format, DSS1-parameters-codeset-0", "DSS1-SS-parameters-codeset-0" and "UUS1-Content" are defined by V1.3.2.

[7] Void.

[8] Void.

[9] Void.

[10] ETSI EN 300 061-1: "Integrated Services Digital Network (ISDN); Subaddressing (SUB) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[11] Void.

[12] Void.

[13] Void.

[14] ETSI EN 300 097-1 (V1.2.4): "Integrated Services Digital Network (ISDN); Connected Line Identification Presentation (COLP) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

NOTE: Reference [14] is specific, because several parameter format definitions point to V1.2.4.

[15] Void.

[16] ETSI EN 300 130-1: "Integrated Services Digital Network (ISDN); Malicious Call Identification (MCID) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[17] Void.

[18] Void.

[19] ETSI EN 300 185-1: "Integrated Services Digital Network (ISDN); Conference call, add-on (CONF) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[20] ETSI EN 300 188-1: "Integrated Services Digital Network (ISDN); Three-Party (3PTY) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[21] ETSI EN 300 207-1 (V1.2.5): "Integrated Services Digital Network (ISDN); Diversion supplementary services; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

NOTE: Reference [21] is specific, because the format of the sub parameters for "DSS1-SS-Invoke-Components" is defined by V1.2.5. In addition several parameter format definitions point to V1.2.5.

[22] Void.

[23] 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".

[24] Void.

[25] ETSI EN 300 369-1 (V1.2.4): "Integrated Services Digital Network (ISDN); Explicit Call Transfer (ECT) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

NOTE: Reference [25] is specific, because the format of the sub parameters for "DSS1-SS-Invoke-Components" is defined by V1.2.4.

[26] Void.

[27] Void.

[28] Void.

[29] ETSI EN 300 196-1 (V1.3.2): "Integrated Services Digital Network (ISDN); Generic functional protocol for the support of supplementary services; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

NOTE: Reference [29] is specific, because several parameter format definitions point to V1.3.2.

[30] Void.

[31] Recommendation ITU-T Q.850 (1998): "Usage of cause and location in the Digital Subscriber Signalling System No. 1 and the Signalling System No. 7 ISDN User Part".

NOTE: Reference [31] is specific, because several parameter format definitions point to version 1988.

[32] ETSI TS 100 974: "Digital cellular telecommunications system (Phase 2+); Mobile Application Part (MAP) specification (3GPP TS 09.02)".

[33] Recommendation ITU-T X.680: "Information technology - Abstract Syntax Notation One (ASN.1): Specification of basic notation".

[34] Recommendation ITU-T X.690: "Information technology - ASN.1 encoding rules: Specification of Basic Encoding Rules (BER), Canonical Encoding Rules (CER) and Distinguished Encoding Rules (DER)".

[35] Recommendation ITU-T X.880: "Information technology - Remote Operations: Concepts, model and notation".

[36] Void.

[37] Recommendation ITU-T X.882: "Information technology - Remote Operations: OSI realizations - Remote Operations Service Element (ROSE) protocol specification".

[38] Void.

[39] ETSI EN 300 122-1: "Integrated Services Digital Network (ISDN); Generic keypad protocol for the support of supplementary services; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[40] ETSI EN 300 392-1: "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 1: General network design".

[41] ETSI TS 124 008: "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); LTE; Mobile radio interface Layer 3 specification; Core network protocols; Stage 3 (3GPP TS 24.008)".

[42] ETSI TS 101 509: "Digital cellular telecommunications system (Phase 2+) (GSM); Lawful interception; Stage 2 (3GPP TS 03.33)".

[43] ETSI TS 100 927: "Digital cellular telecommunications system (Phase 2+); Numbering, addressing and identification (3GPP TS 03.03)".

[44] Void.

[45] ETSI TS 101 347: "Digital cellular telecommunications system (Phase 2+); General Packet Radio Service (GPRS); GPRS Tunnelling Protocol (GTP) across the Gn and Gp Interface (3GPP TS 09.60)".

[46] IETF RFC 959: "File Transfer Protocol".

[47] Void.

[48] Recommendation ITU-T Q.763: "Signalling System No.7 - ISDN User Part formats and codes".

[49] ETSI TS 101 393: "Digital cellular telecommunications system (Phase 2+); General Packet Radio Service (GPRS); GPRS Charging (3GPP TS 12.15)".

[50] Void.

[51] IETF RFC 791: "Internet Protocol".

[52] IETF RFC 793: "Transmission Control Protocol".

[53] Void.

[54] ETSI EN 300 089: "Integrated Services Digital Network (ISDN); Calling Line Identification Presentation (CLIP) supplementary service; Service description".

[55] ETSI TS 100 940: "Digital cellular telecommunications system (Phase 2+); Mobile radio interface layer 3 specification (3GPP TS 04.08)".

[56] Recommendation ITU-T Q.931: "ISDN user-network interface layer 3 specification for basic call control".

[57] ETSI TS 101 109: "Digital cellular telecommunications system (Phase 2+); Universal Geographical Area Description (GAD) (3GPP TS 03.32)".

[58] Recommendation ITU-T E.164: "The international public telecommunication numbering plan".

[59] IETF RFC 3261: "SIP: Session Initiation Protocol".

[60] ETSI TS 129 060: "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); General Packet Radio Service (GPRS); GPRS Tunnelling Protocol (GTP) across the Gn and Gp interface (3GPP TS 29.060)".

[61] ETSI TS 133 108: "Universal Mobile Telecommunications System (UMTS); LTE; 3G security; Handover interface for Lawful Interception (LI) (3GPP TS 33.108)".

[62] ETSI TS 125 431: "Universal Mobile Telecommunications System (UMTS); UTRAN Iub interface Layer 1 (3GPP TS 25.431)".

[63] Recommendation ITU-T Q.731.3: "Stage 3 description for number identification supplementary services using Signalling System No. 7: Calling line identification presentation (CLIP)".

[64] Recommendation ITU-T Q.951.1: "Stage 3 description for number identification supplementary services using DSS 1: Direct-dialling-in (DDI)".

[65] Recommendation ITU-T Q.951.3: "Stage 3 description for number identification supplementary services using DSS 1: Calling line identification presentation".

[66] ETSI EN 300 092 (all parts): "Integrated Services Digital Network (ISDN); Calling Line Identification Presentation (CLIP) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol".

[67] ISO 3166-1: "Codes for the representation of names of countries and their subdivisions - Part 1: Country codes".

[68] IETF RFC 3966: "The tel URI for Telephone Numbers".