ETSI TS 102 657 V1.29.1 (2022-12)

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

iTeh STANDARD PREVIEW
(standards.iteh.ai)
ETSI TS 102 657 V1.29.1 (2022-12)
https://standards.iteh.ai/catalog/standards/sist/a35d1bb4-508b-4dea-b7bc-4ba16972ea86/etsi-ts-102-657-v1-29-1-2022-12

Reference
RTS/LI-00231

Keywords
handover, retention

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 - APE 7112B
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° w061004871

Important notice

The present document can be downloaded from:
http://www.etsi.org/standards-search

The present document may be made available in electronic versions and/or in print. The content of any electronic and/or print versions of the present document shall not be modified without the prior written authorization of ETSI. In case of any existing or perceived difference in contents between such versions and/or in print, the prevailing version of an ETSI deliverable is the one made publicly available in PDF format at www.etsi.org/deliver.

Users of the present document should be aware that the document may be subject to revision or change of status.
Information on the current status of this and other ETSI documents is available at
https://portal.etsi.org/TB/ETSIDeliverableStatus.aspx

If you find errors in the present document, please send your comment to one of the following services:
https://portal.etsi.org/People/CommiteeSupportStaff.aspx

If you find a security vulnerability in the present document, please report it through our
Coordinated Vulnerability Disclosure Program:
https://www.etsi.org/standards/coordinated-vulnerability-disclosure

Notice of disclaimer & limitation of liability

The information provided in the present deliverable is directed solely to professionals who have the appropriate degree of experience to understand and interpret its content in accordance with generally accepted engineering or other professional standard and applicable regulations.
No recommendation as to products and services or vendors is made or should be implied.
No representation or warranty is made that this deliverable is technically accurate or sufficient or conforms to any law and/or governmental rule and/or regulation and further, no representation or warranty is made of merchantability or fitness for any particular purpose or against infringement of intellectual property rights.
In no event shall ETSI be held liable for loss of profits or any other incidental or consequential damages.

Any software contained in this deliverable is provided "AS IS" with no warranties, express or implied, including but not limited to, the warranties of merchantability, fitness for a particular purpose and non-infringement of intellectual property rights and ETSI shall not be held liable in any event for any damages whatsoever (including, without limitation, damages for loss of profits, business interruption, loss of information, or any other pecuniary loss) arising out of or related to the use of or inability to use the software.

Copyright Notification

No part may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm except as authorized by written permission of ETSI.
The content of the PDF version shall not be modified without the written authorization of ETSI.
The copyright and the foregoing restriction extend to reproduction in all media.

© ETSI 2022.
All rights reserved.

Contents

Intellectual Property Rights 9
Foreword 9
Modal verbs terminology 9
1 Scope 10
2 References 10
2.1 Normative references 10
2.2 Informative references 13
3 Definition of terms, symbols and abbreviations 13
3.1 Terms 13
3.2 Symbols 14
3.3 Abbreviations 14
4 Overview of handover interface 17
4.1 Reference model 17
4.2 Structure of document and applicable communication domains 18
4.3 Categories of retained data 19
4.4 Handover Interface port 1 (HI-A) and Handover Interface port 2 (HI-B) 19
4.5 Model used for the RDHI 20
5 Handover interface message flows 20
5.1 Overview 20
5.1.1 Summary of this clause 20
5.1.2 Message flow modes 20
5.1.3 Delivery cases 21
5.1.4 "Active" requests and "closed" requests 21
5.1.5 Errors and failure situations 21
5.1.5.1 Error and failure types 21
5.1.5.2 Request process failure feedback 22
5.1.5.3 Other errors 22
5.1.5.4 Missing messages 22
5.1.6 Cancelling a request 23
5.1.7 Delivery of results 23
5.1.8 State diagram 24
5.1.9 Supplementary Messages 25
5.2 Message flows for general situation 25
5.2.1 Delivery of a response 25
5.2.2 Cancellation of request 26
5.2.3 Multi-part delivery 27
5.3 Message flows for Authorized-Organization-initiated scenario 28
5.3.1 Delivery of results or a failure response 28
5.3.2 Cancellation of request 29
5.3.3 Multi-part delivery 30
5.4 Message types for HI-A and HI-B 31
5.5 HI-A and HI-B addressing 32
6 Definition of the elements for retained data messages 32
6.1 Header information 32
6.1.1 Use of header information 32
6.1.2 RequestID field specification 32
6.1.3 CSP Identifiers 33
6.1.3.1 Use of CSP identifiers (CSPID) 33
6.1.3.2 Third Party CSP Identifier (thirdPartyCSPID) 33
6.1.4 Timestamp (timeStamp) 33
6.1.5 RequestType (requestType) 33
6.1.6 RequestFlag (requestFlag) 33
6.2 Retained Data response 33

iTeh STANDARD PREVIEW
(standards.iteh.ai)
ETSI TS 102 657 V1.29.1 (2022-12)
https://standards.iteh.ai/catalog/standards/sist/a35d1bb4-508b-4dea-b7bc-4be16972ea86/etsi-ts-102-657-v1-29-1-2022-12

6.2.1 General 33
6.2.2 Additional information in response messages 34
6.2.2.1 Record number (recordNumber) 34
6.2.2.2 Response status (ResponseStatus) 34
6.2.3 Volatile information 34
6.2.4 Unavailable parameters 34
6.3 Retained Data requests 35
6.3.1 Information contained within a request 35
6.3.2 Format of a request 35
6.3.3 Additional information in requests 36
6.3.3.1 Priority of a request 36
6.3.3.2 Maximum hits 36
6.3.3.3 Maximum records per batch 36
6.3.3.4 Number of records limit 37
6.4 Error messages 37

7 Data exchange techniques 37
7.1 General 37
7.2 HTTP data exchange 37
7.2.1 Basic configuration 37
7.2.2 Single client/server 38
7.2.3 Mutual client/server 38
7.2.4 Details common to both single and mutual cases 38
7.3 Direct TCP data exchange 38
7.3.0 General 38
7.3.1 Application layer 39
7.3.2 Transport layer 39
7.3.2.1 Introduction 39
7.3.2.2 TCP settings 39
7.3.3 Network layer 39
7.3.4 Delivery networks 39

8 Security Measures 40
8.1 General 40
8.2 Connection Level Security 40
8.3 Application Level Security 40
8.4 Technical Security Measures 41
8.4.1 General 41
8.4.2 Connection Level 41
8.4.3 Application Level 41
8.4.3.1 Hashes 41
8.4.3.2 Digital Signatures 41
8.4.3.3 HI-B Non-Repudiation 41
8.4.3.4 Digital Signatures and Message Structure 42

Annex A (normative): Data fields 43

A.1 Summary 43
A.1.1 Introduction to data fields 43
A.1.2 Choice of data modelling language 43
A.1.3 Overview 43

A.2 Parameter definition for common fields 44
A.2.1 RetainedDataHeader 44
A.2.1.1 Parameters 44
A.2.1.2 RequestID parameters 44
A.2.2 RetainedDataPayload 44
A.2.2.1 RequestMessage parameters 44
A.2.2.2 RequestAcknowledgement parameters 45
A.2.2.3 ResponseMessage parameters 45
A.2.2.4 GetStatusMessage parameters 45
A.2.2.5 StatusMessage parameters 45
A.2.2.6 ErrorMessage parameters 46

iTeh STANDARD PREVIEW
(standards.iteh.ai)
ETSI TS 102 657 V1.29.1 (2022-12)
https://standards.iteh.ai/catalog/standards/sist/a35d1bb4-508b-4dea-b7bc-c972ea86/etsi-ts-102-657-v1.29.1-2022-12

A.2.3 GenericSubscriberInfo....46
A.2.3.1 Parameters....46
A.2.3.2 OrganizationInfo parameters....46
A.2.3.3 IndividualInfo parameters....47
A.2.3.4 ContractInformation parameters....47
A.2.4 PaymentDetails....48
A.3 ASN.1 definitions....48
A.3.1 General....48
A.3.1.1 ASN.1 syntax tree....48
A.3.1.2 General remarks on ASN.1....48
A.3.2 ASN.1 Definitions for message headers....49
A.3.2.1 Message wrappers....49
A.3.2.2 Message headers....49
A.3.3 ASN.1 definitions for common fields....49
A.3.4 Void....49
Annex B (normative): Service-specific details for telephony services....50
B.1 Scope....50
B.2 Telephony fields....50
B.2.1 General....50
B.2.2 Telephony Subscriber....50
B.2.2.0 General....50
B.2.2.1 subscriber ID....50
B.2.2.2 genericSubscriberInfo....51
B.2.2.3 telephonySubscriberInfo....51
B.2.2.4 subscribedTelephonyServices....51
B.2.2.4.1 Description....51
B.2.3 Telephony Billing Details....52
B.2.3.0 General....52
B.2.3.1 BillingRecords....52
B.2.4 TelephonyServiceUsage....53
B.2.4.1 Parameters....53
B.2.4.2 PartyInformation....53
B.2.4.3 SMSInformation....54
B.2.4.4 MmsInformation....54
B.2.5 TelephonyDevice....55
B.2.5.1 General....55
B.2.6 TelephonyNetworkElement....55
B.2.6.1 General....55
B.2.6.2 Location parameters....55
B.2.6.2.1 General....55
B.2.6.2.2 GSM Location Information....57
B.2.6.2.3 UMTS Location Information....57
B.2.6.2.4 Extended Location....57
B.2.6.3 TransmitterDetails parameters....58
B.2.6.3.1 General....58
B.3 ASN.1 definitions for telephony....58
B.4 Void....58
Annex C (normative): Service-specific details for asynchronous message services....59
C.1 Scope....59
C.2 Descriptions....59
C.2.1 General....59
C.2.2 MsgSubscriber....60
C.2.2.0 General....60
C.2.2.1 MsgSubscriberID....60
C.2.2.2 MsgStore....60
C.2.2.3 MsgStoreID....60

iTeh STANDARD PREVIEW
(standards.iteh.ai)
ETSI TS 102 657 V1.29.1 (2022-12)
https://standards.iteh.ai/catalog/standards/sist/...

C.2.2.4 MsgAddress 60
C.2.2.5 MsgProviderID 61
C.2.2.6 MsgForwardingAddresses 61
C.2.2.7 MsgStoreSubscriberRelatedIDs 61
C.2.3 MsgServiceUsage 61
C.2.3.0 General 61
C.2.3.1 MsgTransmission 61
C.2.3.2 MsgStoreOperation 61
C.2.4 MsgBillingDetails parameters 62
C.2.4.0 General 62
C.2.4.1 MsgBillingRecords 62
C.3 ASN.1 definitions for asynchronous message services 63
C.4 Void 63
Annex D (normative): Service-specific details for synchronous multi-media services 64
D.1 Scope 64
D.2 Multimedia fields 64
D.2.1 General 64
D.2.2 Multimedia Subscriber 64
D.2.2.0 General 64
D.2.2.1 subscriberID 65
D.2.2.2 genericSubscriberInfo 65
D.2.2.3 multimediaSubscriberInfo 65
D.2.2.4 subscribedMultimediaServices 65
D.2.2.4.1 Description 65
D.2.3 MultimediaBillingDetails 66
D.2.3.1 MultimediaBillingDetails 66
D.2.3.2 MultimediaBillingAddress 67
D.2.3.3 MultimediaBillingRecords 67
D.2.4 Multimedia ServiceUsage 67
D.2.4.1 Parameters 67
D.2.4.2 PartyInformation 68
D.2.4.3 IMSInformation 69
D.2.4.4 MediaComponents 69
D.2.5 MultimediaDevice 70
D.2.5.1 General 70
D.3 ASN.1 definitions for Multimedia 70
D.4 Void 70
Annex E (normative): Service-specific details for network access services 71
E.1 Scope 71
E.2 Descriptions 71
E.2.1 General 71
E.2.2 NASubscriber 71
E.2.3 NAServiceSubscription 72
E.2.4 NAServiceUsage 72
E.2.5 NADevice 78
E.2.6 NANwElement 78
E.2.7 NABillingDetails 78
E.3 ASN.1 definitions for network access services 79
E.4 Void 79
Annex F (informative): Basic set of search routines for Retained Data 80
F.1 Example set of search routines 80
F.1.1 Overview 80

iTeh STANDARD PREVIEW
(standards.iteh.ai)
ETSI TS 102 657 V1.29.1 (2022-12)
https://standards.iteh.ai/catalog/standards/sist/a33d1884-308b-4dea-b7be-4ba1697ea8b/etsi-ts-102-657-v1.29.1-2022-12

F.1.2 Summary of search case 80
F.1.3 Subscriber records 80

F.2 Telephony data 81
F.2.1 Telephony subscriber 81
F.2.2 Telephony billing details 81
F.2.3 Telephony service usage 81
F.2.4 Telephony network element 82

F.3 Messaging data 82
F.3.1 Message subscriber 82
F.3.2 Message service usage 82

F.4 Network Access data 83
F.4.1 NA subscriber 83
F.4.2 NA service usage 83

Annex G (informative): Examples of search routines 84

G.1 Introduction 84

G.2 Example for telephony subscriber query in clause F.2.1 84

G.3 Example for telephony service usage query in clause F.2.3 85

Annex H (informative): Further information on data categories 86

H.1 General 86

H.2 Further information on subscriber data 86
H.2.1 Subscriber data requests 86
H.2.2 Generic subscriber data records 86
H.2.3 Service Specific Subscriber Reply Data 87

H.3 Further information on usage data 87
H.3.1 Usage requests 87
H.3.2 Usage data categories 88
H.3.3 Usage: Traffic Data (Reply) 88
H.3.4 Usage: Traffic Data related information (Reply) 88
H.3.5 Usage: communication independent user activities (Reply) 88
H.3.6 Usage: network Activity Data (Reply) 88

H.4 Further information on network element data 89
H.4.1 Network element requests 89
H.4.2 Network Configuration Data Reply Data 89

Annex I (informative): Manual techniques 90

Annex J (informative): Single versus multi-part deliveries 91

J.1 General 91

J.2 Criteria for multi-part delivery 91

J.3 Subscriptions into the future 92

Annex K (normative): Service-specific details for Edge Computing applications 93

K.1 Overview 93

K.2 Edge Computing fields 93
K.2.1 General 93
K.2.2 Edge Computing Subscriber 93
K.2.2.1 General 93
K.2.2.2 subscriberID 93
K.2.2.3 genericSubscriberInfo 94
K.2.2.4 edgeComputingSubscriberInfo 94
K.2.2.5 subscribedEdgeComputingApplications 94

iTeh STANDARD PREVIEW
(standards.iteh.ai)
ETSI TS 102 657 V1.29.1 (2022-12)
https://standards.iteh.ai/catalog/standards/sist/a35d1bb4-508b-4dea-b7bc-
4ad1f3f2ee86/etsi-ts-102-657-v1-29-1-2022-12

K.2.2.5.1 Description 94
K.2.3 EdgeComputingApplicationBillingDetails 95
K.2.3.1 EdgeComputingApplicationBillingDetails 95
K.2.3.2 EdgeComputingApplicationBillingRecords 95
K.2.4 EdgeComputingApplicationUsage 95
K.2.4.1 Parameters 95
K.2.5 EdgeComputingDevice 96
K.2.5.1 General 96

Annex L (informative): Bibliography 97

Annex M (informative): Change Request History 98

History 102

iTeh STANDARD PREVIEW
(standards.iteh.ai)
ETSI TS 102 657 V1.29.1 (2022-12)
https://standards.iteh.ai/catalog/standards/sist/a35d1bb4-508b-4dea-b7bc-4ba16972ea86/etsi-ts-102-657-v1-29-1-2022-12

Intellectual Property Rights

Essential patents

IPRs essential or potentially essential to normative deliverables may have been declared to ETSI. The declarations pertaining to these essential IPRs, if any, are 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 Directives including the ETSI IPR Policy, no investigation regarding the essentiality of IPRs, 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.

DECT™, **PLUGTESTS™**, **UMTS™** and the ETSI logo are trademarks of ETSI registered for the benefit of its Members. **3GPP™** and **LTE™** are trademarks of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners. **oneM2M™** logo is a trademark of ETSI registered for the benefit of its Members and of the oneM2M Partners. **GSM**® and the GSM logo are trademarks registered and owned by the GSM Association.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Foreword

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

https://standards.iteh.ai/catalog/standards/sist/a35d1bb4-508b-4dea-b7bc-4ba16972ea86/etsi-ts-102-657-v1-29-1-2022-12

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

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.

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.

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.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

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

ETSI TS 102 657 V1.29.1 (2022-12)
https://standards.iteh.ai/catalog/standards/sist/a35d1bb4-508b-4dea-b7bc-4ba16972ea86/etsi-ts-102-657-v1-29-1-2022-12

[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)".

[14] IETF RFC 7230: "Hypertext Transfer Protocol (HTTP/1.1): Message Syntax and Routing".

[15] IETF RFC 2818: "HTTP Over TLS".

[16] ETSI TS 123 040: "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); LTE; 5G; Technical realization of the Short Message Service (SMS) (3GPP TS 23.040)".

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

[18] IETF RFC 5681: "TCP Congestion Control".

NOTE: IETF RFC 5681 obsoletes IETF RFC 2581: "TCP Congestion Control".

[19] IETF RFC 6298: "Computing TCP's Retransmission Timer".

NOTE: IETF RFC 6298 obsoletes IETF RFC 2988: "Computing TCP's Retransmission Timer".

[20] IETF RFC 1122: "Requirements for Internet Hosts - Communication Layers".

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

[22] ETSI ES 282 002: "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); PSTN/ISDN Emulation Sub-system (PES); Functional architecture".

[23] Void.

[24] IETF RFC 5322: "Internet Message Format".

NOTE: IETF RFC 5322 obsoletes IETF RFC 2822: "Internet Message Format".

[25] ETSI TS 123 228: "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); LTE; IP Multimedia Subsystem (IMS); Stage 2 (3GPP TS 23.228)".

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

[27] IETF RFC 4506: "XDR: External Data Representation Standard".

[28] ISO 13616-1:2020: "Financial services -- International Bank Account Number (IBAN) -- Part 1: Structure of the IBAN".

NOTE: Used in the attached ASN.1 or XSD documents available in ts_102657v012901p0.zip.

[29] ISO 9362:2014: "Banking -- Banking Telecommunication Messages -- Business Identifier Code (BIC)".

NOTE: Used in the attached ASN.1 or XSD documents available in ts_102657v012901p0.zip.

[30] Void.

[31] ETSI TS 125 413: "Universal Mobile Telecommunications System (UMTS); UTRAN Iu interface Radio Access Network Application Part (RANAP) signalling (3GPP TS 25.413)".

[32] ETSI TS 129 274: "Universal Mobile Telecommunications System (UMTS); LTE; 5G; 3GPP Evolved Packet System (EPS); Evolved General Packet Radio Service (GPRS) Tunnelling Protocol for Control plane (GTPv2-C); Stage 3 (3GPP TS 29.274)".

iTeh STANDARD PREVIEW
(standards.iteh.ai)
https://standards.iteh.ai/catalog/standards/sist/a35d1bb4-508b-4dea-b7bc-

[33] ETSI TS 129 061: "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); LTE; 5G; Interworking between the Public Land Mobile Network (PLMN) supporting packet based services and Packet Data Networks (PDN) (3GPP TS 29.061)".

[34] ETSI TS 129 118: "Universal Mobile Telecommunications System (UMTS); LTE; Mobility Management Entity (MME) - Visitor Location Register (VLR) SGs interface specification (3GPP TS 29.118)".

[35] ETSI TS 123 272: "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); LTE; Circuit Switched (CS) fallback in Evolved Packet System (EPS); Stage 2 (3GPP TS 23.272)".

[36] ETSI TS 133 234: "Universal Mobile Telecommunications System (UMTS); LTE; 3G security; Wireless Local Area Network (WLAN) interworking security (3GPP TS 33.234)".

NOTE: Used in the attached ASN.1 or XSD documents available in ts_102657v012901p0.zip.

[37] W3C® Recommendation 21 March 2017: "XML Path Language (XPath) 3.1".

[38] ETSI TS 123 008: "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); LTE; 5G; Organization of subscriber data (3GPP TS 23.008)".

[39] ETSI TS 124 229: "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); LTE; 5G; IP multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); Stage 3 (3GPP TS 24.229)".

[40] Void.

[41] ETSI TS 123 003: "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); LTE; 5G; Numbering, addressing and identification (3GPP TS 23.003)".

[42] ETSI TS 138 413: "5G; NG-RAN; NG Application Protocol (NGAP) (3GPP TS 38.413)".

NOTE: Used in the attached ASN.1 or XSD documents available in ts_102657v012901p0.zip.

[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)".

[45] ETSI TS 123 501: "5G; System architecture for the 5G System (5GS) (3GPP TS 23.501)".

[46] ETSI TS 132 291:"5G; Telecommunication management; Charging management; 5G system, charging service; Stage 3 (3GPP TS 32.291)".

[47] ETSI TS 132 255: "5G; Telecommunication management; Charging management; 5G data connectivity domain charging; Stage 2 (3GPP TS 32.255)".

[48] ETSI TS 129 520: "5G; 5G System; Network Data Analytics Services; Stage 3 (3GPP TS 29.520)".

[49] ETSI TS 132 251: "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); LTE; Telecommunication management; Charging management;Packet Switched (PS) domain charging (3GPP TS 32.251)".

[50] ETSI TS 137 340: "Universal Mobile Telecommunications System (UMTS); LTE; 5G; NR; Multi-connectivity; Overall description; Stage-2 (3GPP TS 37.340)".

[51] Recommendation ITU-T Q.850: "Usage of cause and location in the Digital Subscriber Signalling System No. 1 and the Signalling System No. 7 ISDN user part".

iTeh STANDARD PREVIEW
(standards.iteh.ai)
ETSI TS 102 657 V1.29.1 (2022-12)
https://standards.iteh.ai/catalog/standards/sist/...
4ba16972ea86/etsi-ts-102-657-v1-29-1-2022-12

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

[53] GSMA SGP.02: "Remote Provisioning Architecture for Embedded UICC Technical Specification".

NOTE: Used in the attached ASN.1 or XSD documents available in ts_102657v012901p0.zip.

[54] Recommendation ITU-T G.984.1: "Gigabit-capable passive optical networks (GPON): General characteristics".

NOTE: Used in the attached ASN.1 or XSD documents available in ts_102657v012901p0.zip.

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

[56] ETSI TS 123 558: "5G; Architecture for enabling Edge Applications (3GPP TS 23.558)".

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.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

3 Definition of terms, symbols and abbreviations

https://standards.iteh.ai/catalog/standards/sist/a35d1bb4-508b-4dea-b7bc-4ba16972ea86/etsi-ts-102-657-v1-29-1-2022-12

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:

NOTE: Some abbreviations are only used in the ASN.1 or XSD documents available in ts_102657v012901p0.zip.

3GPP	3rd Generation Partnership Project
5G	5th Generation
5GS	5G System
ACID	Application Client ID
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
ASP	Application Service Provider
BER	Basic Encoding Rules
BIC	Business Identifier Code
CAN	Connectivity Access Network
CellID	Cell Identification
CGI	Cell Global Identity
CHF	CHarging Function
CPE	Customer Premises Equipment
CPU	Central Processing Unit
CR	Change Request
CS	Circuit Switched
CSP	Communications Service Provider
CSPID	CSP IDentifier
DNN	Data Network Name
DR	Data Retention
DSA	Digital Signature Algorithm
DSL	Digital Subscriber Line
DSS	Digital Signature Standard
DVD	Digital Versatile Disc or Digital Video Disc
EAS	Edge Application Server
eCGI	e-UTRAN Cell Global ID
ECSP	Edge Computing Service Provider
EECID	Edge Enabler Client ID
EID	Embedded (UICC) IDentifier
EMS	Enhanced Messaging Service

iTeh STANDARD PREVIEW
(standards.iteh.ai)
ETSI TS 102 657 V1.29.1 (2022-12)
https://standards.iteh.ai/catalog/standards/sist/a35d1bb4-508b-4dea-b7bc-...-ts-102-657-v1.29.1-2022-12

EN-DC	E-UTRA-NR Dual Connectivity
EPC	Enhanced Packet Core
EPS	Evolved Packet System
eUICC	embedded UICC
eUTRAN	Evolved UMTS Terrestrial Radio Access Network
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
IOI	Inter Operator Identifiers
IP	Internet Protocol
IPSec	Internet Protocol Security
IPv4	Internet Protocol (version 4)
IPv6	Internet Protocol (version 6)
IRI	Intercept Related Information
ISDN	Integrated Services Digital Network
ISP	Internet Service Provider
ISUP	ISDN User Part
LAN	Local Area Network
LEA	Law Enforcement Agency
LTE	3GPP Long Term Evolution (4G)
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
MoIP	Multimedia over IP
MS	Mobile Station
MSC	Mobile Switching Centre
MSISDN	Mobile Subscriber ISDN number
MSN	Multiple Subscriber Number
N3IWF	Non 3GPP InterWorking Function
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

iTeh STANDARD PREVIEW
(https://standards.iteh.ai)
ETSI TS 102 657 V1.29.1 (2022-12)
https://standards.iteh.ai/catalog/standards/sist/a35d1bb4-508b-4dea-b7bc-etsi-ts-102-657-v1-29-1-2022-12