



SLOVENSKI STANDARD
SIST EN 301 931-1 V1.1.2:2005
01-januar-2005

Inteligentno omrežje (IN) – Tretji nabor zmožnosti inteligentnega omrežja (CS3) – Aplikacijski protokol inteligentnega omrežja (INAP) – Specifikacija protokola – 1. del: Skupni vidiki

Intelligent Network (IN); Intelligent Network Capability Set 3 (CS3); Intelligent Network Application Protocol (INAP); Protocol specification; Part 1: Common aspects

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 301 931-1 V1.1.2:2005](https://standards.iteh.ai/catalog/standards/sist/aedbd1e8-02c2-4141-8083-ba2ccc3cad04b/sist-en-301-931-1-v1-1-2-2005)

Ta slovenski standard je istoveten z: <https://standards.iteh.ai/catalog/standards/sist/aedbd1e8-02c2-4141-8083-ba2ccc3cad04b/sist-en-301-931-1-v1-1-2-2005> **EN 301 931-1 Version 1.1.2**

ICS:

33.040.40 Podatkovna komunikacijska omrežja Data communication networks

SIST EN 301 931-1 V1.1.2:2005 en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 301 931-1 V1.1.2:2005

<https://standards.iteh.ai/catalog/standards/sist/aedbd1e8-02c2-4141-8083-ba2ce5ead04b/sist-en-301-931-1-v1-1-2-2005>

ETSI EN 301 931-1 V1.1.2 (2001-09)

European Standard (Telecommunications series)

**Intelligent Network (IN);
Intelligent Network Capability Set 3 (CS3);
Intelligent Network Application Protocol (INAP);
Protocol specification;
Part 1: Common aspects**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 301 931-1 V1.1.2:2005](https://standards.iteh.ai/catalog/standards/sist/aedbd1e8-02c2-4141-8083-ba2ce5ead04b/sist-en-301-931-1-v1-1-2-2005)

<https://standards.iteh.ai/catalog/standards/sist/aedbd1e8-02c2-4141-8083-ba2ce5ead04b/sist-en-301-931-1-v1-1-2-2005>



Reference

DEN/SPAN-03063/1-1

Keywords

CS3, CTM, IN, INAP, protocol, UPT

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

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 301 931-1 V1.1.2:2005

<https://standards.iteh.ai/catalog/standards/sist/aedbd1e8-02c2-4141-8083-ba2ce5ead04b/sist-en-301-931-1-v1-1-2-2005>

Important notice

Individual copies of the present document can be downloaded from:

<http://www.etsi.org>

The present document may be made available in more than one electronic version or in print. In any case of existing or perceived difference in contents between such versions, the reference version is the Portable Document Format (PDF). In case of dispute, the reference shall be the printing on ETSI printers of the PDF version kept on a specific network drive within ETSI Secretariat.

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 <http://www.etsi.org/tb/status/>

If you find errors in the present document, send your comment to:

editor@etsi.fr

Copyright Notification

No part may be reproduced except as authorized by written permission.
The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 2001.
All rights reserved.

Contents

Intellectual Property Rights	8
Foreword	8
1 Scope	9
2 References	9
3 Abbreviations	12
4 Scope of IN Distributed Functional Plane for capability set 3	15
4.1 End user access	16
4.2 Call related service invocation and control	16
4.3 End user interaction	17
4.4 IN service management functionality	17
4.5 Call Party Handling	17
4.6 Internetworking	17
4.7 Security	17
4.8 Out-Channel User Interaction	18
4.9 Call unrelated service invocation and control	18
4.10 Feature Interactions	18
4.11 Distributed Functional Model	19
4.12 Communication model	20
5 FE Models	20
5.1 Call Control Function/Service Switching Function (CCF/SSF) Models	20
5.1.1 General	20
5.1.2 CCF/SSF Components	20
5.1.2.1 Basic Call Manager (BCM)	21
5.1.2.2 Feature Interaction Manager/Call Manager (FIM/CM)	21
5.1.2.3 IN - Switching Manager (IN-SM)	22
5.1.3 CCF/SSF Trigger Information Objects	24
5.1.4 SSF FSM Structure	25
5.2 Specialized Resource Function (SRF) Models	27
5.2.1 General	27
5.2.2 SRF Components	27
5.2.2.1 Functional Entity Access Manager (FEAM)	28
5.2.2.2 Resource Control Part (RCP)	28
5.2.2.3 Resource Function Part (RFP)	28
5.2.2.4 Data Part (DP)	28
5.2.3 SRF Functional Resources	28
5.2.4 SRF FSM Structure	29
5.3 Service Control Function (SCF) Models	30
5.3.1 General	30
5.3.2 SCF Components	30
5.3.2.1 Service Logic Execution Manager (SLEM)	31
5.3.2.1.1 General	31
5.3.2.1.2 Service Logic Selection/Interaction Manager (SLSIM)	31
5.3.2.1.3 Service Logic Processing program Instance (SLPI)	32
5.3.2.1.4 Resource manager	32
5.3.2.1.5 Internetworking manager	32
5.3.2.2 SCF data access manager	33
5.3.2.2.1 General	33
5.3.2.2.2 Service data object directory	33
5.3.2.2.3 IN network-wide resource data	33
5.3.2.3 Functional routine manager	33
5.3.2.4 Functional Entity Access Manager (FEAM)	33
5.3.2.5 SLP manager	33
5.3.2.6 Security manager	34

5.3.3	The SCF FSM structure.....	34
5.4	Service Data Function (SDF) Models.....	35
5.4.1	General.....	35
5.4.2	SDF Components.....	36
5.4.2.1	SDF Data Manager.....	36
5.4.2.2	Functional Entity Access Manager (FEAM).....	36
5.4.2.3	Security Manager.....	36
5.4.3	Data Types Handled by SDF.....	37
5.4.4	SDF FSM Structure.....	37
5.5	Call Control Function/Call Unrelated Service Function (CCF/CUSF) Models.....	38
5.5.1	General.....	38
5.5.2	CCF/CUSF Components.....	38
5.5.2.1	Basic Non-Call Manager (BNCM).....	39
5.5.2.2	IN - Non-Switching Manager (IN-NSM).....	39
5.5.2.3	Feature Interaction Manager/Non-Call Manager (FIM/NCM).....	39
5.5.3	Relationship of CCF/CUSF Model Components.....	39
5.5.3.1	BNCM relationship to IN-NSM.....	39
5.5.3.2	BNCM and IN-NSM relationships to FIM/NCM.....	39
5.5.4	CUSF Trigger Information Objects.....	40
5.5.5	CUSF FSM Structure.....	41
5.6	Service Management Function (SMF) Models.....	42
5.6.1	General.....	42
5.6.2	SMF Components.....	42
5.6.2.1	Configuration Manager.....	42
5.6.2.2	Fault Manager.....	42
5.6.2.3	Performance Manager.....	42
5.6.2.4	Testing Manager.....	43
5.6.2.5	Security Control Manager.....	43
5.6.2.6	Security Access Manager.....	43
5.6.2.7	Functional Entity Access Manager (FEAM).....	43
6	Use of FE Relationships.....	43
6.1	SCF-SSF Relationship.....	43
6.2	SCF-SCF Relationship.....	44
6.3	SCF-IAF Relationships.....	44
6.4	SRF-CCF Relationship.....	44
6.5	SRF-SCF Relationship.....	44
6.6	SCF-SDF Relationship.....	44
6.7	SDF-SDF Relationship.....	44
6.8	CUSF-SCF Relationship.....	44
6.9	CUSF-SSF Relationship.....	45
6.10	SMF-SCF Relationship.....	45
6.11	SMF-SDF Relationship.....	45
6.12	SMF-CCF/SSF Relationship.....	45
6.13	SMF-SRF Relationship.....	46
6.14	SMF-SMAF Relationship.....	46
6.15	SMF - SCEF Relationship.....	46
6.16	SMF-SMF Relationship.....	46
6.17	SMF-CCF/CUSF Relationship.....	47
7	Protocol Realization.....	47
7.1	Overview.....	47
7.2	Application Contexts.....	48
7.3	Abstract Syntax and Transfer Syntax.....	48
7.4	SACF/MACF Rules.....	48
7.4.1	Reflection of TCAP AC.....	48
7.4.2	Sequential/Parallel execution of operations.....	49
8	Congestion Control.....	49
8.1	Lower layer flow control.....	49
8.2	Application level flow control.....	50
9	Protocol mechanisms.....	50

9.1	Compatibility Mechanisms and extensibility rules.....	50
9.1.1	Introduction	50
9.1.2	Definition of INAP compatibility mechanisms.....	51
9.1.2.1	Procedures for major additions to INAP.....	51
9.1.2.2	Procedures for minor additions to INAP.....	51
9.1.2.3	Procedures for inclusion of network specific additions to INAP.....	51
9.2	IN Generic Interface Security	51
9.2.1	Interface Security Requirements.....	52
9.2.2	INAP screening requirements.....	52
9.2.2.1	INAP Application Context Screening Requirements.....	52
9.2.2.2	INAP Protocol Screening Requirements.....	52
9.2.3	Security Procedures and Algorithms.....	53
9.2.3.1	Authentication Procedures	53
9.2.3.2	Three-Way Mutual Authentication	54
9.2.3.3	Assignment of Credentials.....	54
9.2.4	Mapping of Security Information Flow Definitions to Tokens.....	54
9.2.5	Security FSM definitions.....	54
10	Services assumed from Lower Layers	54
10.1	Services assumed from TCAP.....	55
10.1.1	Common Procedures	55
10.1.1.1	Normal Procedures	55
10.1.1.2	Abnormal Procedures	56
10.1.1.3	Dialogue Handling.....	57
10.1.1.3.1	Dialogue Establishment.....	57
10.1.1.3.2	Dialogue Continuation.....	58
10.1.1.3.3	Dialogue Termination.....	58
10.1.1.3.4	User Abort.....	59
10.1.1.3.5	Provider Abort	59
10.1.1.3.6	Mapping to TC Dialogue Primitives.....	59
10.1.1.3.7	Default Mapping to TC Dialogue Parameters.....	60
10.1.1.4	Component Handling.....	61
10.1.1.4.1	Procedures for INAP Operations.....	61
10.1.1.4.2	Mapping to TC Component Primitives.....	63
10.1.1.4.3	Default Mapping to TC Component Parameters.....	64
10.2	Services assumed from SCCP.....	64
10.2.1	Normal Procedures.....	65
10.2.2	Service Functions from SCCP	65
10.2.2.1	SCCP Connectionless Services	65
10.2.2.1.1	INAP Addressing	65
10.2.2.1.2	Sequence Control	66
10.2.2.1.3	Return on Error.....	67
10.2.2.1.4	Segmentation/reassembly	67
10.2.2.1.5	Congestion Control	67
10.2.2.2	SCCP Connection Oriented Services.....	67
10.2.2.3	SCCP Management.....	67
11	Error Definitions.....	68
11.1	Void.....	68
11.2	Cancelled.....	68
11.2.1	Error description	68
11.2.2	Parameter description.....	68
11.2.3	Relevant interface	68
11.3	CancelFailed	68
11.3.1	Error description	68
11.3.2	Parameter description.....	68
11.3.3	Relevant interfaces.....	68
11.4	Void.....	69
11.5	Void.....	69
11.6	Void.....	69
11.7	ETCFailed.....	69
11.7.1	Error description	69

11.7.2	Parameter description.....	69
11.7.3	Relevant interface	69
11.8	Void.....	69
11.9	ImproperCallerResponse	69
11.9.1	Error description	69
11.9.2	Parameter description.....	69
11.9.3	Relevant interfaces.....	69
11.10	MissingCustomerRecord	69
11.10.1	Error description	69
11.10.2	Parameter description.....	70
11.10.3	Relevant interfaces.....	70
11.11	MissingParameter.....	70
11.11.1	Error description	70
11.11.2	Parameter description.....	70
11.11.3	Relevant interfaces.....	70
11.12	Void.....	70
11.13	ParameterOutOfRange.....	70
11.13.1	Error description	70
11.13.2	Parameter description.....	70
11.13.3	Relevant interfaces.....	70
11.14	Void.....	71
11.15	RequestedInfoError	71
11.15.1	Error description	71
11.15.2	Parameter description.....	71
11.15.3	Relevant interface	71
11.16	Void.....	71
11.17	Void.....	71
11.18	Void.....	71
11.19	Void.....	71
11.20	Void.....	71
11.21	Void.....	71
11.22	SystemFailure	71
11.22.1	Error description	71
11.22.2	Parameter description.....	72
11.22.3	Relevant interfaces.....	72
11.23	TaskRefused.....	72
11.23.1	Error description	72
11.23.2	Parameter description.....	72
11.23.3	Relevant interfaces.....	72
11.24	Void.....	72
11.25	UnavailableResource	72
11.25.1	Error description	72
11.25.2	Parameter description.....	72
11.25.3	Relevant interface	73
11.26	UnexpectedComponentSequence.....	73
11.26.1	Error description	73
11.26.2	Parameter description.....	73
11.26.3	Relevant interfaces.....	73
11.27	UnexpectedDataValue.....	73
11.27.1	Error description	73
11.27.2	Parameter description.....	73
11.27.3	Relevant interfaces.....	73
11.28	UnexpectedParameter.....	73
11.28.1	Error description	73
11.28.2	Parameter description.....	74
11.28.3	Relevant interfaces.....	74
11.29	UnknownLegID	74
11.29.1	Error description	74
11.29.2	Parameter description.....	74
11.29.3	Relevant interfaces.....	74
11.30	UnknownResource	74
11.30.1	Error description	74

iTech STANDARD PREVIEW
(standards.itech.ai)

SIST EN 301 931-1 V1.1.2:2005
<http://standards.itech.ai/catalog/standards/sist/aedbd1e8-02c2-4141-8083-ba2ce5ead04b/sist-en-301-931-1-v1-1-2-2005>

11.30.2	Parameter description.....	74
11.30.3	Relevant interface	74
11.31	UnknownSubscriber	74
11.31.1	Error description	74
11.31.2	Parameter description.....	74
11.31.3	Relevant interface	74
12	Common Definitions.....	75
12.1	Object identifiers.....	75
12.2	Common Data Types	77
12.3	Operation codes.....	77
12.4	Errors.....	79
12.4.1	Error types	79
12.4.2	Error codes	81
12.5	Common classes.....	81
Annex A (informative):	List of non backward compatible changes between IN CS2 and IN CS3	85
A.1	InitiateAssociation operation has changed to a class 1 operation.....	85
A.2	Tag modification in the argument of the MoveCallSegments operation	85
A.3	Removal of the LegID parameter in the RequestedUTSI datatype	86
A.4	New transition to "Stable call" CSCVS (Stable-2-Party, Stable-1-Party).....	86
Annex B (informative):	Bibliography.....	87
History		89

ITeH STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 301 931-1 V1.1.2:2005](https://standards.iteh.ai/catalog/standards/sist/aedbd1e8-02c2-4141-8083-ba2ce5ead04b/sist-en-301-931-1-v1-1-2-2005)

<https://standards.iteh.ai/catalog/standards/sist/aedbd1e8-02c2-4141-8083-ba2ce5ead04b/sist-en-301-931-1-v1-1-2-2005>

Intellectual Property Rights

IPRs essential or potentially essential to the present document 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 (<http://www.etsi.org/ipr>).

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.

Foreword

This European Standard (Telecommunications series) has been produced by ETSI Technical Committee Services and Protocols for Advanced Networks (SPAN).

The present document describes the common aspects of IN including an overview of each FE. It also describes aspects of the protocol that are common to all interfaces, including services assumed from lower layers, IN security information and the common data types used on all the interfaces.

The present document is part 1 of a multi-part deliverable covering Intelligent Network (IN); Intelligent Network Application Protocol (INAP); Capability Set 3 (CS3); Protocol specification, as identified below:

Part 1: "Common aspects";

Part 2: "SCF-SSF interface";

Part 3: "SCF-SRF interface";

Part 4: "SDLs for SCF-SSF interface";

STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 301 931-1 V1.1.2:2005](https://standards.iteh.ai/catalog/standards/sist/aedbd1e8-02c2-4141-8083-ba2ce5ead04b/sist-en-301-931-1-v1-1-2-2005)

<https://standards.iteh.ai/catalog/standards/sist/aedbd1e8-02c2-4141-8083-ba2ce5ead04b/sist-en-301-931-1-v1-1-2-2005>

The present document and parts 2 to 4 define the Intelligent Network (IN) Application Protocol (INAP) for IN Capability Set-3 based upon ETSI Core INAP CS-2 (EN 301 140-1 [3]). This set of documents fully define SCF to SSF interface (part 2) and SCF to SRF interface (part 3) as a subset of the ITU-T IN CS3 Recommendations Q.1238.1, Q.1238.2 and Q.1238.3 (1999). For the other interfaces, the ETSI Core INAP CS2 series of EN 301 140-1 [3] apply.

In addition to the features supporting IN CS-1 and IN CS-2 functionalities, the present document and parts 2 to 4 provide:

- general extensions to the CS-2 INAP in support of IN CS-3 target services;
- protocol support for Call Party Handling capabilities;
- additional details on services assumed from lower layers and generic interface security;
- SDLs for SSF related procedure handling based upon ITU-T Recommendation Z.100 [55] object oriented Specification and Description Language (SDL).

National transposition dates

Date of adoption of this EN:	31 August 2001
Date of latest announcement of this EN (doa):	30 November 2001
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 May 2002
Date of withdrawal of any conflicting National Standard (dow):	31 May 2002

1 Scope

The present document provides a brief introduction to the modelling of IN CS-3 Functional Entities (FE). It also describes aspects of the protocol that are common to all interfaces. This includes physical examples of interface interconnection, services assumed from lower layers (e.g. TCAP), IN security information and the common data types used on all the interfaces.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication and/or edition number or version number) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

- [1] ANSI T1.113-1995: "Signalling System No.7, ISDN User Part".
- [2] ETSI ETS 300 287-1: "Integrated Services Digital Network (ISDN); Signalling System No.7; Transaction Capabilities (TC) version 2; Part 1: Protocol specification [ITU-T Recommendations Q.771 to Q.775 (1993), modified]".
- [3] ETSI EN 301 140-1: "Intelligent Network (IN); Intelligent Network Application Protocol (INAP); Capability Set 2 (CS2); Part 1: Protocol specification".
- [4] ETSI EN 301 140-5: "Intelligent Network (IN); Intelligent Network Application Protocol (INAP); Capability Set 2 (CS2); Part 5: Distributed Functional Plane (DFP) [ITU-T Recommendation Q.1224 (1997), modified]".
- [5] ETSI EN 300 403-1: "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]".
- [6] ETSI EN 301 070-1: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 interactions with the Intelligent Network Application Part (INAP); Part 1: Protocol specification [ITU-T Recommendation Q.1600 (1997), modified]".
- [7] ETSI ES 201 296: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP); Signalling aspects of Charging".
- [8] ETSI TS 124 008: "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Mobile radio interface layer 3 specification; Core Network Protocols - Stage 3 (3G TS 24.008 version 3.3.1 Release 1999)".
- [9] ETSI TS 129 002: "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Mobile Application Part (MAP) specification (3G TS 29.002 version 3.4.0 Release 1999)".
- [10] ETSI TS 122 024: "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Description of Charge Advice Information (CAI) (3G TS 22.024 version 3.0.1 Release 1999)".
- [11] ETSI TS 123 078: "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Customized Applications for Mobile network Enhanced Logic (CAMEL) phase 3 - Stage 2 (3G TS 23.078 version 3.3.0 Release 1999)".
- [12] ETSI TS 123 040: "Digital cellular telecommunications system (GSM); Universal Mobile Telecommunications System (UMTS); Technical realization of the Short Message Service (SMS); (3G TS 23.040 version 3.4.1 Release 1999)".

- [39] ITU-T Recommendation Q.1236: "Intelligent Network Capability Set 3 - Management information model requirements and methodology".
- [40] ITU-T Recommendation Q.1290: "Glossary of terms used in the definition of intelligent networks".
- [41] ITU-T Recommendation Q.1400 (1993): "Architecture framework for the development of signalling and OA&M protocols using OSI concepts".
- [42] ITU-T Recommendation Q.1601: "Signalling system No. 7 - Interaction between N-ISDN and INAP CS-2".
- [43] ITU-T Recommendation X.500 (1997) | ISO/IEC 9594-1 (1997): "Information technology - Open Systems Interconnection - The Directory: Overview of concepts, models and services".
- [44] ITU-T Recommendation X.509 (1997): "Information technology - Open Systems Interconnection - The Directory: Authentication framework".
- [45] ITU-T Recommendation X.519 (1997) | ISO/IEC 9594-5 (1997): "Information technology - Open Systems Interconnection - The Directory: Protocol specifications".
- [46] ITU-T Recommendation X.680 (1997): "Information technology - Abstract Syntax Notation One (ASN.1): Specification of basic notation".
- [47] ITU-T Recommendation X.690 (1997): "Information technology - ASN.1 encoding rules - Specification of Basic Encoding Rules (BER), Canonical Encoding Rules (CER) and Distinguished Encoding Rules (DER)".
- [48] ITU-T Recommendation X.733 (1992): "Information technology - Open Systems Interconnection - Systems management: Alarm reporting function".
- [49] ITU-T Recommendation X.734 (1992): "Information technology - Open Systems Interconnection - Systems management: Event report management function".
- [50] ITU-T Recommendation X.738 (1993): "Information technology - Open Systems Interconnection - Systems management: Summarization Function".
- [51] ITU-T Recommendation X.739 (1993): "Information technology - Open Systems Interconnection - Systems management: Metric objects and attributes".
- [52] ITU-T Recommendation X.880 (1994) | ISO/IEC 13712-1 (1994): "Information technology - Remote Operations: Concepts, model and notation".
- [53] ITU-T Recommendation X.831 (1995) | ISO/IEC 11586-2 (1995): "Information technology - Open Systems Interconnection - Generic upper layers security: Security Exchange Service Element (SESE) service definition".
- [54] ITU-T Recommendation X.832 (1995) | ISO/IEC 11586-3 (1995): "Information technology - Open Systems Interconnection - Generic upper layers security: Security Exchange Service Element (SESE) protocol specification".
- [55] ITU-T Recommendation Z.100 (1999): "Specification and Description Language (SDL)".
- [56] ETSI EN 301 931-2: "Intelligent Network (IN); Intelligent Network Capability Set 3 (CS3); Intelligent Network Application Protocol (INAP); Protocol specification; Part 2: SCF - SSF interface".
- [57] ETSI EN 301 931-3: "Intelligent Network (IN); Intelligent Network Capability Set 3 (CS3); Intelligent Network Application Protocol (INAP); Protocol specification; Part 3: SCF-SRF interface".
- [58] ETSI EN 301 931-4: "Intelligent Network (IN); Intelligent Network Capability Set 3 (CS3); Intelligent Network Application Protocol (INAP); Protocol specification; Part 4: SDLs for SCF-SSF interface".
- [59] ITU-T Recommendation Q.1204: "Intelligent network distributed functional plane architecture".

- [60] ITU-T Recommendation Q.2931: "Digital subscriber signalling system No. 2 - User-network interface (UNI) layer 3 specification for basic call/connection control".
- [61] ITU-T Recommendation Q.1214: "Distributed functional plane for intelligent network CS-1".
- [62] ETSI I-ETS 300 819: "Telecommunications Management Network (TMN); Functional specification of usage metering information management on the Operations System/Network Element (OS/NE) interface".

3 Abbreviations

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

AC	Application Context
ACN	Application Context Negotiation
ACSE	Application Control Service Element
AD	Adjunct
ADSI	Analogue Display Service Interface Server
AE	Application Entity
AEI	Application Entity Invocation
AOC	Advice Of Charge
APCI	Application Protocol Control Information
APDU	Application Protocol Data Unit
API	Application Process Instance
ASE	Application Service Element
ASR	Automatic Speech Recognition
ATS	Abstract Test Suite
BCM	Basic Call Manager
BCP	Basic Call Process
BCSM	Basic Call State Model
BCUP	Basic Call Unrelated Process
BCUSM	Basic Call Unrelated State Model
BGID	Business Group Identity
BNCM	Basic Non Call Manager
BRI	Basic Rate Interface
CAC	Carrier Access Code
CCAF	Call Control Agent Function
CCF	Call Control Function
CDP	Customized Dialling Plan
CHA	Component Handler
CID	Call Instance Data
CM	Call Manager
CMIS	Common Management Information System
CPH	Call Party Handling
CS	Capability Set
CSA	Call Segment Association
CSCV	Call Segment Connection View
CSM	Call Segment Model
CUSF	Call Unrelated Service Function
CUSP	Call Unrelated Service Point
CVS	Connection View State
DAP	Directory Access Protocol
DET	Determination (charging)
DFP	Distributed Functional Plane
DHA	Dialogue Handler
DLE	Destination Local Exchange
DN	Directory Number
DP	Detection Point
DPC	Destination Point Code
DSA	Directory System Agent

DSL	Distributed Service Logic
DSP	Directory System Protocol
DSS1	Digital Subscriber Signalling No. 1 Protocol
DSS2	Digital Subscriber Signalling No. 2 Protocol (Broadband)
DTMF	Dual Tone Multi Frequency
DUA	Directory User Agent
EDP	Event Detection Point
EDP-N	Event Detection Point-Notification
EDP-R	Event Detection Point-Request
EUI	Extended User Interface Server
FE	Functional Entity
FEA	Functional Entity Action
FEAM	Functional Entity Access Manager
FIM	Feature Interactions Manager
FPLMTS	Future Public Land Mobile Telecommunications Services
FRL	Facility Restriction Level
FSM	Finite State Machine
GEN	Generation(charging)
GFP	Global Functional Plane
GSL	Global Service Logic
GSS	Generic Security Service
GT	Global Title
GULS	Generic Upper Layer Security
GVNS	Global Virtual Network Services
HLSIB	High Level Service Independent Block
IAF	Intelligent Access Function
ICA	InitiateCall Attempt
IEC	International Electrotechnical Commission
IN	Intelligent Network
INAP	Intelligent Network Application Protocol
INCM	IN Conceptual Model
INDB	IN Data base
INDBMS	IN Data Base Management System
IN-SM	IN Switching Manager
IN-SSM	IN Switching State Model
IP	Intelligent Peripheral
ISDN	Integrated Services Digital Network
ISO	International Organization for Standardization
ISUP	Integrated Services Digital Network-User Part
ITU-T	International Telecommunication Union - Telecommunication Standardization
LE	Local Exchange
MACF	Multiple Association Control Function
MSR	Message Storage and Retrieval
MTP	Message Transfer Part
NAP	Network Access Point
NCM	Non Call Manager
NEF	Network Element Function
NFA	Network Functional Architecture
NM	Network Manager
NSAP	Network Service Access Point
OCCRUI	Out Channel Call Related User Interaction
OCCUUI	Out Channel Call Unrelated User Interaction
OFC	Off-line Charging (billing/accounting information)
OLE	Originating Local Exchange
OLI	Originating Line Information
ONC	On-line Charging (user access information)
OSF	Operator System Function
OSI	Open Systems Interconnection
OUT	Output
PE	Physical Entity
PIC	Point In Call
PICS	Protocol Implementation Conformance Statement