
**Information technology —
Telecommunications and information
exchange between systems — Private
Integrated Services Network —
Specification, functional model and
information flows — Call Interception
additional network feature**

*Technologies de l'information — Télécommunications et échange
d'information entre systèmes — Réseau privé à intégration de
services — Spécification, modèle fonctionnel et flux d'informations —
Facilité de réseau additionnelle d'interception d'appel*

PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

© ISO/IEC 2003

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Foreword	v
Introduction	vi
1 Scope	1
2 Conformance	1
3 Normative references	1
4 Terms and definitions	2
4.1 External definitions	2
4.2 Other definitions	2
4.2.1 Additional Network Feature	2
4.2.2 ANF-CINT user	2
4.2.3 Busy	2
4.2.4 Call, basic call	2
4.2.5 Called user	3
4.2.6 Intercepted-to user	3
4.2.7 Interception cause	3
4.2.8 Interception delayed	3
4.2.9 Interception immediate	3
4.2.10 Waiting on busy	3
5 List of acronyms	3
6 ANF-CINT stage 1 specification	3
6.1 Description	3
6.1.1 General description	3
6.1.2 Qualifications on applicability to telecommunication services	4
6.2 Procedures	4
6.2.1 Provision/withdrawal	4
6.2.2 Normal procedures	4
6.2.3 Exceptional procedures	5
6.3 Interactions with other supplementary services and ANFs	5
6.3.1 Calling Line Identification Presentation (CLIP)	5
6.3.2 Connected Line Identification Presentation (COLP)	5
6.3.3 Calling/Connected Line Identification Restriction (CLIR)	6
6.3.4 Calling Name Identification Presentation (CNIP)	6
6.3.5 Connected Name Identification Presentation (CONP)	6
6.3.6 Calling/Connected Name Identification Restriction (CNIR)	6
6.3.7 Call Diversion (CFU, CFB, CFNR, CD)	6
6.3.8 Do Not Disturb (DND)	6
6.3.9 Do Not Disturb Override (DNDO)	6
6.3.10 Call Completion to Busy Subscriber (CCBS)	6
6.3.11 Call Completion on No Reply (CCNR)	6
6.3.12 Call Offer (CO)	6
6.3.13 Call Intrusion (CI)	6
6.3.14 Call Transfer (CT)	7
6.3.15 Path Replacement (PR)	7
6.3.16 Advice Of Charge (AOC/S/D/E)	7

6.3.17	Recall (RE)	7
6.4	Interworking considerations	7
6.5	Overall SDL	7
7	ANF-CINT stage 2 specification	12
7.1	Functional model	12
7.1.1	Functional model description	12
7.1.2	Description of functional entities	12
7.1.3	Relationship of functional model to basic call functional model	13
7.2	Information flows	13
7.2.1	Definition of information flows	13
7.2.2	Relationship of information flows to basic call information flows	19
7.2.3	Information flow sequences	20
7.3	Functional entity actions	27
7.3.1	Functional entity actions of FE1	27
7.3.2	Functional entity actions of FE2	27
7.3.3	Functional entity actions of FE3	27
7.3.4	Functional entity actions of FE4	28
7.3.5	Functional entity actions of FE5	28
7.3.6	Functional entity actions of FE6	28
7.4	Functional entity behaviour	28
7.4.1	Behaviour of FE1	28
7.4.2	Behaviour of FE2	29
7.4.3	Behaviour of FE3	30
7.4.4	Behaviour of FE4	32
7.4.5	Behaviour of FE5	33
7.4.6	Behaviour of FE6	35
7.5	Allocation of functional entities to physical equipment	36
7.6	Interworking considerations	37

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC 15053 was prepared by ECMA (as ACMA-220) and was adopted, under a special “fast-track procedure”, by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, in parallel with its approval by national bodies of ISO and IEC.

This second edition cancels and replaces the first edition (ISO/IEC 15053:1997), which has been technically revised.

Introduction

This International Standard is one of a series of Standards defining services and signalling protocols applicable to Private Integrated Services Networks (PISNs). The series uses ISDN concepts as developed by ITU-T and conforms to the framework of International Standards for Open Systems Interconnection as defined by ISO/IEC.

This International Standard specifies the Call Interception additional network feature.

This International Standard is based upon the practical experience of ECMA member companies and the results of their active and continuous participation in the work of ISO/IEC JTC 1, ITU-T, ETSI and other international and national standardization bodies. It represents a pragmatic and widely based consensus.

Information technology — Telecommunications and information exchange between systems — Private Integrated Services Network — Specification, functional model and information flows — Call Interception additional network feature

1 Scope

This International Standard specifies Additional Network Feature Call Interception (ANF-CINT), which is applicable to various basic services supported by Private Integrated Services Networks (PISN). Basic services are specified in ISO/IEC 11574.

ANF-CINT is an additional network feature which enables calls that cannot be completed due to certain conditions to be redirected to a pre-defined intercepted-to user.

ANF specifications are produced in three stages, according to the method described in ETS 300 387. This International Standard contains the stage 1 and stage 2 specifications of ANF-CINT. The stage 1 specification (clause 6) specifies the feature as seen by users of PISNs. The stage 2 specification (clause 7) identifies the functional entities involved in the feature and the information flows between them.

2 Conformance

In order to conform to this International Standard, a stage 3 standard shall specify signalling protocols and equipment behaviour that are capable of being used in a PISN which supports the feature specified in this International Standard. This means that, to claim conformance, a stage 3 standard is required to be adequate for the support of those aspects of clause 6 (stage 1) and clause 7 (stage 2) which are relevant to the interface or equipment to which the stage 3 standard applies.

3 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 11571:1998, *Information technology - Telecommunications and information exchange between systems - Private Integrated Services Networks - Addressing*

ISO/IEC 11574:2000, *Information technology - Telecommunications and information exchange between systems - Private Integrated Services Network - Circuit-mode 64 kbit/s bearer services - Service description, functional capabilities and information flows*

ISO/IEC 11579-1:1994, *Information technology - Telecommunications and information exchange between systems - Private integrated services network - Part 1: Reference configuration for PISN Exchanges (PINX)*

ETS 300 387:1994, *Private Telecommunication Network (PTN); Method for the specification of basic and supplementary services*

ITU-T Rec. I.112:1993, *Vocabulary of terms for ISDNs*

ITU-T Rec. I.210:1993, *Principles of telecommunication services supported by an ISDN and the means to describe them*

ITU-T Rec. I.221:1993, *Common specific characteristics of services*

ITU-T Rec. Z.100:1999, *Specification and description language (SDL)*