

INTERNATIONAL STANDARD

ISO/IEC
15055

First edition
1997-05-15

Information technology — Telecommunications and information exchange between systems — Private Integrated Services Network — Specification, functional model and information flows — Transit counter 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 de compteur de transfert*



Contents

Foreword	iv
Introduction	v
1 Scope	1
2 Conformance	1
3 Normative references	1
4 Definitions	2
4.1 External definitions	2
4.2 Other definitions	2
5 List of acronyms	2
6 ANF-TC stage 1 specification	2
6.1 Description	2
6.1.1 General description	2
6.1.2 Qualifications on applicability to telecommunication services	2
6.2 Procedure	3
6.2.1 Provision/withdrawal	3
6.2.2 Normal procedures	3
6.2.3 Exceptional procedures	3
6.3 Interaction with other supplementary services and ANFs	3
6.3.1 Calling Line Identification Presentation (SS-CLIP)	3
6.3.2 Connected Line Identification Presentation (SS-COLP)	3
6.3.3 Calling/Connected Line Identification Restriction (SS-CLIR)	3
6.3.4 Calling Name Identification Presentation (SS-CNIP)	3
6.3.5 Connected Name Identification Presentation (SS-CONP)	3
6.3.6 Calling/Connected Name Identification Restriction (SS-CNIR)	3
6.3.7 Completion of Calls to Busy Subscriber (SS-CCBS)	3
6.3.8 Completion of Calls on No Reply (SS-CCNR)	3
6.3.9 Call Transfer (SS-CT)	3
6.3.10 Call Forwarding Unconditional (SS-CFU)	3
6.3.11 Call Forwarding Busy (SS-CFB)	4
6.3.12 Call Forwarding No Reply (SS-CFNR)	4
6.3.13 Call Deflection (SS-CD)	4
6.3.14 Path Replacement (ANF-PR)	4
6.3.15 Call Interception (ANF-CINT)	4
6.3.16 Advice of Charge (SS-AOC)	4
6.3.17 Recall (SS-RE)	4
6.3.18 Call Offer (SS-CO)	4
6.3.19 Call Intrusion (SS-CI)	4

© ISO/IEC 1997

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 the publisher.

ISO/IEC Copyright Office • Case postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

6.3.20 Do Not Disturb (SS-DND)	4
6.3.21 Do Not Disturb Override (SS-DNDO)	4
6.4 Interworking considerations	4
6.5 Overall SDL	4
7 ANF-TC stage 2 specification	5
7.1 Functional model	5
7.1.1 Functional model description	5
7.1.2 Description of functional entities	6
7.1.3 Relationship of functional model to basic call functional model	6
7.2 Information flows	6
7.2.1 Definition of information flows	6
7.2.2 Relationship of information flows to basic call information flows	6
7.2.3 Examples of information flow sequences	6
7.3 Functional entity actions	7
7.3.1 Functional entity actions of FE1	7
7.3.2 Functional entity actions of FE2	7
7.4 Functional entity behaviour	8
7.4.1 Behaviour of FE1	8
7.4.2 Behaviour of FE2	9
7.5 Allocation of functional entities to physical equipment	10
7.6 Interworking considerations	10

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. 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.

International Standard ISO/IEC 15055 was prepared by ECMA (as ECMA-224) 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 is a preview - [click here to buy the full publication](#)

Introduction

This International Standard is one of a series of standards defining services and signalling protocols applicable to Private Integrated Services Networks. The series uses the ISDN concepts as developed by ITU-T (formerly CCITT) and is also within the framework of standards for open systems interconnection as defined by ISO.

This International Standard specifies the Transit Counter additional network feature.

The 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.

There is currently no equivalent service/feature specified by ITU-T or ETSI for public ISDNs.

Information technology - Telecommunications and information exchange between systems - Private Integrated Services Network - Specification, functional model and information flows - Transit counter additional network feature

1 Scope

This International Standard specifies the Transit Counter additional network feature (ANF-TC), which is applicable to various basic services supported by Private Integrated Services Networks (PISN). Basic services are specified in ISO/IEC 11574.

ANF-TC is an additional network feature which limits the number of network exchanges that a call request may transit during call establishment, e.g. to protect the network against indefinite looping. There is no user involved in the provision or operation of ANF-TC.

Additional network feature specifications are produced in three stages, according to the method described in CCITT Rec. I.130. This International Standard contains the stage 1 and stage 2 specifications of ANF-TC. The stage 1 specification (clause 6) specifies the general feature principles and capabilities. 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 standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

- | | |
|------------------------|--|
| ISO/IEC 11574:1994, | <i>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.</i> |
| ISO/IEC 11579-1:1994, | <i>Information technology - Telecommunications and information exchange between systems - Private Integrated Services Network - Part 1: Reference configuration for PISN Exchanges (PINX).</i> |
| ISO/IEC 13863:1995, | <i>Information technology - Telecommunications and information exchange between systems - Private Integrated Services Network - Specification, functional model and information flows - Path replacement additional network feature.</i> |
| ISO/IEC 13865:1995, | <i>Information technology - Telecommunications and information exchange between systems - Private Integrated Services Network - Specification, functional model and information flows - Call transfer supplementary service.</i> |
| ISO/IEC 13866:1995, | <i>Information technology - Telecommunications and information exchange between systems - Private Integrated Services Network - Specification, functional model and information flows - Call completion supplementary services.</i> |
| ISO/IEC 13872:1995, | <i>Information technology - Telecommunications and information exchange between systems - Private Integrated Services Network - Specification, functional model and information flows - Call diversion supplementary services.</i> |
| CCITT Rec. I.112:1988, | <i>Vocabulary of terms for ISDNs.</i> |
| CCITT Rec. I.130:1988, | <i>Method for the characterization of telecommunication services supported by an ISDN and network capabilities of an ISDN.</i> |
| CCITT Rec. I.210:1988, | <i>Principles of telecommunication services supported by an ISDN and the means to describe them.</i> |
| CCITT Rec. Z.100:1988, | <i>Specification and description language.</i> |