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**Information technology —  
Telecommunications and information  
exchange between systems — Private  
Integrated Services Network —  
Specification, functional model and  
information flows — Path replacement  
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 — Caractéristique  
de réseau additionnelle de remplacement de chemin*

## Contents

|                                                                     |    |
|---------------------------------------------------------------------|----|
| Foreword                                                            | v  |
| Introduction                                                        | vi |
| 1 Scope                                                             | 1  |
| 2 Conformance                                                       | 1  |
| 3 Normative references                                              | 1  |
| 4 Definitions                                                       | 1  |
| 4.1 External definitions                                            | 2  |
| 4.2 Other definitions                                               | 2  |
| 4.2.1 Additional network feature                                    | 2  |
| 4.2.2 ANF-PR user                                                   | 2  |
| 4.2.3 Call, basic call                                              | 2  |
| 4.2.4 Connection                                                    | 2  |
| 4.2.5 New connection                                                | 2  |
| 4.2.6 Old connection                                                | 2  |
| 4.2.7 Trombone connection                                           | 2  |
| 5 List of acronyms                                                  | 3  |
| 6 ANF-PR stage 1 specification                                      | 3  |
| 6.1 Description                                                     | 3  |
| 6.1.1 General description                                           | 3  |
| 6.1.2 Qualifications on applicability to telecommunication services | 3  |
| 6.2 Procedures                                                      | 3  |
| 6.2.1 Provision/withdrawal                                          | 3  |
| 6.2.2 Normal procedures                                             | 3  |
| 6.2.3 Exceptional procedures                                        | 4  |
| 6.3 Interaction with other supplementary services and ANFs          | 4  |
| 6.3.1 Calling Line Identification Presentation (SS-CLIP)            | 4  |
| 6.3.2 Connected Line Identification Presentation (SS-COLP)          | 4  |
| 6.3.3 Calling/connected Line Identification Restriction (SS-CLIR)   | 4  |
| 6.3.4 Calling Name Identification Presentation (SS-CNIP)            | 4  |
| 6.3.5 Connected Name Identification Presentation (SS-CONP)          | 4  |
| 6.3.6 Calling/connected Name Identification Restriction (SS-CNIR)   | 4  |
| 6.3.7 Completion of Calls to Busy Subscriber (SS-CCBS)              | 4  |
| 6.3.8 Completion of Calls on No Reply (SS-CCNR)                     | 4  |
| 6.3.9 Call Transfer (SS-CT)                                         | 4  |
| 6.3.10 Call Forwarding Unconditional (SS-CFU)                       | 5  |

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|                                                                         |    |
|-------------------------------------------------------------------------|----|
| 6.3.11 Call Forwarding Busy (SS-CFB)                                    | 5  |
| 6.3.12 Call Forwarding No Reply (SS-CFNR)                               | 5  |
| 6.3.13 Call Deflection (SS-CD)                                          | 5  |
| 6.4 Interworking considerations                                         | 5  |
| 6.5 Overall SDL                                                         | 5  |
| 7 ANF-PR stage 2 specification - basic operation                        | 6  |
| 7.1 Functional model                                                    | 6  |
| 7.1.1 Functional model description                                      | 6  |
| 7.1.2 Description of the functional entities                            | 7  |
| 7.1.3 Relationship of functional model to basic call functional model   | 7  |
| 7.2 Information flows                                                   | 8  |
| 7.2.1 Definition of information flows                                   | 8  |
| 7.2.2 Relationship of information flows to basic call information flows | 9  |
| 7.2.3 Examples of information flow sequences                            | 9  |
| 7.3 Functional entity actions                                           | 12 |
| 7.3.1 Functional entity actions of FE1                                  | 12 |
| 7.3.2 Functional entity actions of FE2                                  | 12 |
| 7.4 Functional entity behaviour                                         | 12 |
| 7.4.1 Behaviour of FE1                                                  | 13 |
| 7.4.2 Behaviour of FE2                                                  | 14 |
| 7.5 Allocation of functional entities to physical equipment             | 15 |
| 7.6 Interworking considerations                                         | 15 |
| 8 ANF-PR stage 2 specification - re-use of connection elements          | 15 |
| 8.1 Functional model                                                    | 15 |
| 8.1.1 Functional model description                                      | 15 |
| 8.1.2 Description of the functional entities                            | 16 |
| 8.1.3 Relationship of functional model to basic call functional model   | 16 |
| 8.2 Information flows                                                   | 17 |
| 8.2.1 Definition of information flows                                   | 17 |
| 8.2.2 Relationship of information flows to basic call information flows | 17 |
| 8.2.3 Examples of information flow sequences                            | 17 |
| 8.3 Functional entity actions                                           | 21 |
| 8.3.1 Functional entity actions of FE1                                  | 21 |
| 8.3.2 Functional entity actions of FE2                                  | 21 |
| 8.3.3 Functional entity actions of FE3                                  | 21 |
| 8.4 Functional entity behaviour                                         | 21 |
| 8.4.1 Behaviour of FE1                                                  | 21 |
| 8.4.2 Enhanced behaviour of FE2                                         | 22 |
| 8.4.3 Behaviour of FE3                                                  | 23 |
| 8.5 Allocation of functional entities to physical equipment             | 24 |
| 8.6 Interworking considerations                                         | 24 |
| 9 ANF-PR stage 2 specification - basic operation with inviting entity   | 24 |
| 9.1 Functional model                                                    | 24 |
| 9.1.1 Functional model description                                      | 24 |

|                                                                         |    |
|-------------------------------------------------------------------------|----|
| 9.1.2 Description of the functional entities                            | 24 |
| 9.1.3 Relationship of functional model to basic call functional model   | 24 |
| 9.2 Information flows                                                   | 25 |
| 9.2.1 Definition of information flows                                   | 25 |
| 9.2.2 Relationship of information flows to basic call information flows | 26 |
| 9.2.3 Examples of information flow sequences                            | 26 |
| 9.3 Functional entity actions                                           | 30 |
| 9.3.1 Functional entity actions of FE1                                  | 30 |
| 9.3.2 Functional entity actions of FE2                                  | 30 |
| 9.3.3 Functional entity actions of FE4                                  | 30 |
| 9.4 Functional entity behaviour                                         | 30 |
| 9.4.1 Behaviour of FE1                                                  | 31 |
| 9.4.2 Behaviour of FE2                                                  | 32 |
| 9.4.3 Behaviour of FE4                                                  | 32 |
| 9.5 Allocation of functional entities to physical equipment             | 32 |
| 9.6 Interworking considerations                                         | 33 |
| <b>Annexes</b>                                                          |    |
| A - Circumstances in which ANF-PR might be invoked                      | 34 |
| B - Avoidance of unacceptable disruption to user information            | 36 |

## 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 13863 was prepared by ECMA (as ECMA-175) 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 13863:1995), which has been technically revised.

Annexes A and B of this International Standard are for information only.

## Introduction

This International Standard is one of a series of International 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 Path Replacement 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 JTC1, ITU-T, ETSI and other international and national standardization bodies. It represents a pragmatic and widely based consensus.

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

## 1 Scope

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

ANF-PR is a feature which applies to an established call, allowing that call's connection between Private Integrated Services Network Exchanges (PINXs) to be replaced by a new connection. If the new connection is required to satisfy certain criteria, ANF-PR should be used in conjunction with other supplementary services and/or ANFs. Annex A gives examples of the circumstances under which ANF-PR can be used and criteria which can govern the selection of the new connection.

Additional network feature specifications are produced in three stages, according to the method described in CCITT Recommendation I.130 for supplementary services. This International Standard contains the stage 1 and stage 2 specifications of ANF-PR. The stage 1 specification (clause 6) specifies the feature as seen by an entity which initiates path replacement, the ANF-PR user. The stage 2 specification (clauses 7, 8 and 9) identifies the functional entities involved in the feature and the information flows between them. Clause 7 contains the stage 2 specification for basic operation of the feature. Clause 8 contains the stage 2 specification for an enhanced mode of working which can be employed when supported by all the equipment involved. It allows some of the elements of the old connection to be re-used. Clause 9 contains the stage 2 specification for an optional enhancement of the basic operation of the feature. It allows the ANF-PR user to be located in any PINX in the old connection and to decide the direction of the new connection.

## 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 clauses 7, 8 and 9 (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 11571:1994,    | <i>Information technology - Telecommunications and information exchange between systems - Numbering and sub-addressing in private integrated services networks.</i>                                                                              |
| 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>                                                   |
| ITU-T Rec. I.112:1993, | <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>                                                                                                                   |
| ITU-T Rec. I.210:1993, | <i>Principles of telecommunication services supported by an ISDN and the means to describe them.</i>                                                                                                                                             |
| ITU-T Rec. Z.100:1993, | <i>Specification and description language.</i>                                                                                                                                                                                                   |