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Information technology — Telecommunications and information exchange between systems — Numbering and sub-addressing in private integrated services networks

Technologies de l'information — Télécommunications et échange d'information entre systèmes — Comptage et sous-adressage dans les réseaux privés avec intégration de service

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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 11571 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 6, *Telecommunications and information exchange between systems*.

Annex C forms an integral part of this International Standard. Annexes A, B, D, E and F are for information only.

Introduction

This International Standard is one of a series of ISO Standards applicable to Private Integrated Services Networks. The series uses the ISDN concepts as developed by CCITT and is also within the concepts of Standards for Open Systems Interconnections as defined by ISO.

This particular standard defines Addressing in Private Integrated Services Networks. Its purpose is to serve as a general and common reference for all addressing statements in the other Standards on Private integrated Services Networks.

This International Standard enables the PISN Adminstrator to choose:

- the ISDN Numbering Plan according to CCITT Recommendation E.164 (1988 Blue Book); or
- a Private Numbering Plan; or
- an Implicit Numbering Plan; or
- any combination of these numbering plans

as the native numbering plan(s) in its PISN.

In addition, the administrator can employ sub-addressing in order to expand the available addressing capacity beyond the capacity of the PISN Numbering Plan (PISN NP).

The impact on terminal interchangeability between accesses of public and private ISDNs can be found in annex D.

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1   Scope

This International Standard defines the requirements for the handling of network addresses for the identification of entities which use/provide telecommunications services offered by Private Integrated Services Networks (PISNs). This International Standard covers numbering, including the requirements for the support of a Private Numbering Plan, and the support of sub-addressing.

This International Standard is applicable to Private Integrated Services Network Exchanges (PINXs) and to terminals attached to the PINXs. Any use by a PINX of the "Support of Private Numbering Plans" supplementary service provided by a public ISDN is outside the scope of this International Standard.

Although this Standard does not explicitly describe its application to location independent (mobile) addressable entities, this application is not precluded.

In order to conform to this International Standard, a PINX shall meet the mandatory requirements of clauses 5, 6, 7, and 9 and for a terminal attached to a PINX it shall meet the mandatory requirements of clauses 8 and 10.

2   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 8348:1993, *Information technology - Open Systems Interconnection - Network Service Definition.*

ISO/IEC 11579:-[1], *Information technology - Telecommunications and information exchange between systems - Reference configuration for Private Integrated Services Networking (PISN) Exchanges.*

CCITT Recommendation I.334; 1988. *Principals relating ISDN Numbers/Addresses to the OSI Reference Model Network Layer Addresses.*

CCITT Recommendation E.160, 1988. *Definitions relating to National and International Numbering Plans.*

CCITT Recommendation E.164, 1988. *Numbering Plan for the ISDN Era.*

CCITT Recommendation Q.931, 1988. *ISDN User-Network Interface Layer 3 Specification For Basic Call Control.*

In addition to these normative references, informative references are listed in Annex A.

3   Definitions

The definitions in ISO/IEC 8348 and CCITT Recommendation E.160 shall apply in ascending order (i.e., in the case of conflict the definition in the publication nearest the end of the list shall apply).

3.1   Address : Formalized information used to indicate unambiguously an identifiable entity. Within the context of this International Standard, identifiable entities are those which use/ provide telecommunication services.

3.1.1   Number : An address restricted to containing numerical values, as defined by a numbering plan.

3.1.1.1 PISN Number : A number in the domain covered by a PISN Numbering Plan.