

INTERNATIONAL
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PROFILE

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**Information technology — International
Standardized Profile RC — X.25 protocol
relaying —**

Part 1:
Subnetwork-independent requirements

*Technologies de l'information — Profil normalisé international RC —
Transmission du protocole X.25 —*

Partie 1: Prescriptions indépendantes du sous-réseau



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Contents	Page
Foreword	iii
Introduction	iv
1 Scope	1
2 Normative references	1
3 Definitions	2
4 Abbreviations	2
5 Requirements	2
5.1 Introduction	2
5.2 Static conformance requirements	2
5.3 Dynamic conformance requirements	3
Annex A: ISPICS requirements list	5
A.1 Introduction	5
A.2 Notation and conventions	5
A.3 IPRL for ISO/IEC TR 10029	7
A.4 IPRL for ISO/IEC 8208	7
Annex B: Assumed base standard PICS proforma	10
B.1 Introduction	10
B.2 ISO/IEC TR 10029	10

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ii

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) together form a system for worldwide standardization as a whole. 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. In addition to developing International Standards, ISO/IEC JTC 1 has created a Special Group on Functional Standardization (ISO/IEC JTC 1/SGFS) for the processing of International Standardized Profiles.

An International Standardized Profile is an internationally agreed, harmonized document which identifies a standard or group of standards, together with options and parameters, necessary to accomplish a function or set of functions.

Draft International Standardized Profiles are circulated to national bodies for voting. Publication as an International Standardized Profile requires approval by at least 75% of the national bodies casting a vote.

International Standardized Profile ISO/IEC ISP 10614-1 was prepared with the collaboration of

- Asia-Oceania Workshop (AOW);
- European Workshop for Open Systems (EWOS);
- Open Systems Environment Implementors' Workshop (OIW).

ISO/IEC ISP 10614 consists of several parts, under the general title *Information technology - International Standardized Profile RC - X.25 protocol relaying*:

- *Part 1: Subnetwork-independent requirements*
- *Part 2: LAN subnetwork-dependent, media-independent requirements*
- *Part 3: CSMA/CD LAN subnetwork-dependent, media-dependent requirements*
- *Part 4: PSDN subnetwork-dependent, media-dependent requirements for virtual calls over a permanent access*
- *Part 5: Definition of profile RC51.1111, X.25 protocol relaying between CSMA/CD LAN subnetworks and PSDNs using virtual calls over a PSTN leased line permanent access*
- *Part 6: Definition of profile RC51.1121, X.25 protocol relaying between CSMA/CD LAN subnetworks and PSDNs using virtual calls over a digital data circuit / CSDN leased line permanent access*

Annexes A and B form an integral part of this part of ISO/IEC ISP 10614.

Introduction

This International Standardized Profile (ISP) is defined in accordance with the principles specified by ISO/IEC Technical Report 10000, "Information technology - Framework and taxonomy of International Standardized Profiles".

The context of Functional Standardization is one area in the overall field of Information Technology (IT) standardization activities, covering base standards, profiles, and registration mechanisms. A profile defines a combination of base standards that collectively perform a specific well-defined IT function. Profiles standardize the use of options and other variations in the base standards, and provide a base for the development of uniform, internationally recognized system tests.

ISPs are produced not simply to "legitimize" a particular choice of base standards and options, but to promote real system interoperability. One of the most important roles for an ISP is to serve as the basis for the development (by organizations other than ISO and IEC) of internationally recognized test methods. The development and widespread acceptance of tests based on this and other ISPs is crucial to the successful realization of this goal.

ISO/IEC ISP 10614 consists of several parts, of which this is part 1. This part of ISO/IEC ISP 10614 specifies the profile requirements that are subnetwork-independent. There are further parts which specify subnetwork-dependent and media-dependent requirements. In addition, for each individual profile there is a part of ISO/IEC ISP 10614 which identifies the specific requirements of that profile, making reference to appropriate material from part 1 and from the subnetwork-dependent parts.

Information technology — International Standardized Profile RC — X.25 protocol relaying —

Part 1: Subnetwork-independent requirements

1 Scope

ISO/IEC ISP 10614 is applicable to interworking units concerned with the use of ISO/IEC 8208 (X.25 Packet Layer Protocol). It specifies a combination of base standards that collectively provide an X.25 protocol relay. The current relay profile taxonomy contained in ISO/IEC TR 10000-2 identifies a limited number of subnetworks to which X.25 protocol relaying is applicable. An X.25 protocol relay provides the means for a system on one subnetwork to communicate with a system, or make use of facilities, on another subnetwork.

This part of ISO/IEC ISP 10614 specifies requirements which are applicable to X.25 protocol relays regardless of the types of subnetworks to which they are attached.

2 Normative references

The following documents contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC ISP 10614. At the time of publication, the editions indicated were valid. All documents are subject to revision, and parties to agreements based on this part of ISO/IEC ISP 10614 are warned against automatically applying any more recent editions of the documents listed below, since the nature of references made by ISPs to such documents is that they may be specific to a particular edition. Members of IEC and ISO maintain registers of currently valid International Standards and ISPs, and ITU-T maintains published editions of its current Recommendations.

ISO/IEC 8208 : 1990, *Information technology - Data communications - X.25 Packet Layer Protocol for Data Terminal Equipment*.

ISO/IEC 8208 : 1990/Amd.3 : 1991, *Information technology - Data communications - X.25 Packet Layer Protocol for Data Terminal Equipment - Amendment 3: Conformance requirements*.

ISO/IEC 8208 : 1990/Amd.3 : 1991/Cor.1 : 1993, *Information technology - Data communications - X.25 Packet Layer Protocol for Data Terminal Equipment - Amendment 3: Conformance requirements - Technical Corrigendum 1*.

ISO/IEC TR 10000-1 : 1992, *Information technology - Framework and taxonomy of International Standardized Profiles - Part 1: Framework*.

ISO/IEC TR 10000-2 : 1994, *Information technology - Framework and taxonomy of International Standardized Profiles - Part 2: Principles and taxonomy for OSI Profiles*.

ISO/IEC TR 10029 : 1989, *Information technology - Telecommunications and information exchange between systems - Operation of an X.25 interworking unit*.

3 Definitions

The terms used in this part of ISO/IEC ISP 10614 are defined in the referenced base standards (see clause 2).

4 Abbreviations

Abbreviations used in this part of ISO/IEC ISP 10614 are defined in the referenced base standards (see clause 2).

5 Requirements

5.1 Introduction

The requirements in this clause apply to all conformant relay systems within the scope of ISO/IEC ISP 10614, and are to be implemented for all subnetwork attachments to which ISO/IEC ISP 10614 applies. Additional specific requirements apply with respect to attachments to certain types of subnetwork; these requirements are specified in subsequent parts of ISO/IEC ISP 10614.

5.2 Static conformance requirements

5.2.1 Overall requirements

An implementation conforming to this part of ISO/IEC ISP 10614 shall:

- a) meet the requirements of ISO/IEC TR 10029;
- b) meet the requirements for ISO/IEC 8208 in clause 5.2.2 below;
- c) implement all the features identified as requirements in the ISPICS requirements lists in annex A.

5.2.2 ISO/IEC 8208

The implementation shall:

- a) meet the static conformance requirements specified in clause 21 of ISO/IEC 8208/Amd.3;
- b) implement the Virtual Call Service;
- c) implement the following capabilities identified in Table 37 of ISO/IEC 8208/Amd.3: