INTERNATIONAL STANDARDIZED PROFILE

ISO/IEC ISP 10614-6

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

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

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

Partie 6: Définition du profil RC51.1121, transmission du protocole X.25 entre sous-réseaux CSMA/CD LAN et PSDNs utilisant des appels virtuels sur un circuit de données numériques/un accès permanent en ligne alloué CSDN

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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 10614-6 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*

Annex A forms 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 tests 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 6. Part 1 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. This part identifies the specific requirements for profile RC51.1121.

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1 Scope

1.1 General

ISO/IEC ISP 10614 is applicable to interworking units concerned with the use of ISO/IEC 8208 (X.25 Packet Layer Protocol). An RCp.q 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 defines the RC51.1121 profile, which is applicable to interworking units operating between CSMA/CD LAN subnetworks and PSDNs using virtual calls over a digital data circuit / CSDN leased line permanent access.

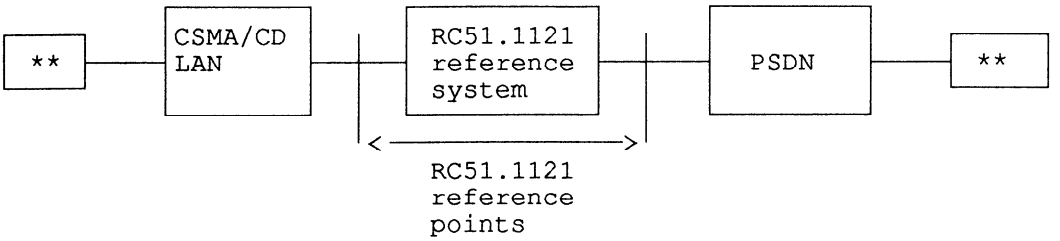
1.2 Position within the taxonomy

The taxonomy of profiles is defined in ISO/IEC TR 10000-2. This part of ISO/IEC ISP 10614 defines the 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.

1.3 Scenario

Figure 1 illustrates the configuration of systems to which the RC51.1121 profile is applicable. The figure shows two reference points, but implementations of RC51.1121 profiles may include any number of subnetwork attachments, with a reference point corresponding to each.



** other compatible network equipment
- OSI relays
- OSI end systems
- other equipment

Figure 1 - Scenario of applicability of the RC51.1121 profile

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 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 ISP 10614-1 : 1995, *Information technology - International Standardized Profile RC - X.25 protocol relaying - Part 1: Subnetwork-independent requirements.*

ISO/IEC ISP 10614-2 : 1995, *Information technology - International Standardized Profile RC - X.25 protocol relaying - Part 2: LAN subnetwork-dependent, media-independent requirements.*

ISO/IEC ISP 10614-3 : 1995, *Information technology - International Standardized Profile RC - X.25 protocol relaying - Part 3: CSMA/CD LAN subnetwork-dependent, media-dependent requirements.*

ISO/IEC ISP 10614-4 : 1995, *Information technology - International Standardized Profile RC - X.25 protocol relaying - Part 4: PSDN subnetwork-dependent, media-dependent requirements for virtual calls over a permanent access.*

Additional normative references are found in each of the ISP parts listed above. These additional normative references are base standards used for development of the relevant ISP parts.

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 Static conformance requirements

An implementation conforming to the profile defined in this part of ISO/IEC ISP 10614 shall:

a) support at least one point of attachment to an ISO/IEC 8802-3 CSMA/CD LAN, through which it shall support all the features specified as static conformance requirements of ISO/IEC ISP 10614-1, ISO/IEC ISP 10614-2 and ISO/IEC ISP 10614-3;

b) support at least one point of attachment to a PSDN, using virtual calls over a digital data circuit/CSDN leased line permanent access, through which it shall support all the features specified as static conformance requirements of ISO/IEC ISP 10614-1 and ISO/IEC ISP 10614-4;

c) support all the features identified as requirements in the ISPICS requirements list in annex A.

5.2 Dynamic conformance requirements

An implementation conforming to the profile defined in this part of ISO/IEC ISP 10614 shall:

a) carry out the supported functions according to the applicable dynamic conformance requirements of ISO/IEC ISP 10614-1, ISO/IEC ISP 10614-2, ISO/IEC ISP 10614-3 and ISO/IEC ISP 10614-4;

b) behave in accordance with the requirements of the ISPICS requirements list in annex A.

Annex A
(normative)

ISPICS requirements list

A.1 General options of the profile

There are no general options in this profile.

A.2 Base standards selected and combined in the profile

- ISO/IEC TR 10029
- ISO/IEC 8208
- ISO/IEC 8881
- ISO 7776
- ISO 8802-2
- ISO/IEC 8802-3

A.3 Constraints on base standards

A conformant implementation of this profile shall:

a) meet all the subnetwork-independent relaying constraints on operation of ISO/IEC TR 10029 and ISO/IEC 8208 which are specified in the ISPICS requirements list in ISO/IEC ISP 10614-1;

b) for operation of the attachments to CSMA/CD LAN subnetworks, meet all the constraints on the operation of ISO/IEC 8208, ISO/IEC 8881, ISO 8802-2 and ISO/IEC 8802-3 which are specified in the ISPICS requirements lists in ISO/IEC ISP 10614-2 and ISO/IEC ISP 10614-3;

c) for operation of the attachments to PSDNs using virtual calls over a digital data circuit/CSDN leased line permanent access, meet all the constraints on the operation of ISO/IEC 8208 and ISO 7776 which are specified in the ISPICS requirements list in ISO/IEC ISP 10614-4.

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