INTERNATIONAL STANDARD

ISO/IEC 10022

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Information technology — Open Systems Interconnection — Physical Service Definition

Technologies de l'information — Interconnexion de systèmes ouverts (OSI) — Définition du service physique

Reference number
ISO/IEC 10022:1996(E)

Contents

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 10022 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 6, *Telecommunications and information exchange between systems*, in collaboration with ITU-T. The identical text is published as ITU-T Recommendation X.211.

This second edition cancels and replaces the first edition (ISO/IEC 10022:1990), which has been technically revised.

Annexes A to C of this International Standard are for information only.

Introduction

This Recommendation | International Standard is one of a set of Recommendations and International Standards produced to facilitate the interconnection of information processing systems. It is related to other Recommendations | International Standards in the set as defined by the Open Systems Interconnection (OSI) Basic Reference Model (see ITU-T Rec. X.200 | ISO/IEC 7498-1). The OSI Basic Reference Model subdivides the area of standardization for interconnection into a series of layers of specification, each of manageable size.

This Recommendation | International Standard defines the service provided by the Physical Layer to the Data Link Layer at the boundary between the Physical and Data Link Layers of the OSI Basic Reference Model. It provides for the designers of Data Link Protocols a definition of the Physical Service existing to support the Data Link Protocol and for the designers of Physical Protocols a definition of the services to be made available through the action of the Physical Protocol over the underlying physical media, which are external to the OSI Physical Layer. The relationship of the Physical Layer with the Data Link Layer is illustrated in Figure Intro. 1.

NOTE – It is important to distinguish the specialized use of the term "Service" within the set of OSI Recommendations | International Standards from its use elsewhere to describe the provision of a service by some organizations (i.e. the provision of a service by an Administration as defined in Recommendations of the ITU-T).

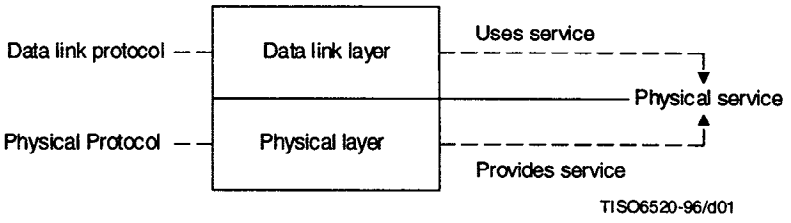

Figure Intro. 1 – Relationship of this Recommendation | International Standard to other OSI Recommendations | International Standards

INTERNATIONAL STANDARD

ITU-T RECOMMENDATION

INFORMATION TECHNOLOGY – OPEN SYSTEMS INTERCONNECTION – PHYSICAL SERVICE DEFINITION

1 Scope

This Recommendation | International Standard defines the OSI Physical Service in terms of:

a) the primitive actions and events of the Service;

b) the parameters associated with each primitive action and event, and the form which they take;

c) the interrelationship between, and the valid sequences of, these actions and events.

The principal objective of this Recommendation | International Standard is to specify the characteristics of a conceptual Physical Service and thus supplement the OSI Basic Reference Model in guiding the development of Physical Layer protocols.

This Recommendation | International Standard does not specify individual implementations or products nor does it constrain the implementation of entities and interfaces within an information processing system.

There is no conformance of equipment to this Recommendation | International Standard. Instead, conformance is achieved through implementation of conforming OSI Physical protocols that fulfil the Physical Service defined in this Recommendation | International Standard.

2 Normative references

The following Recommendations and International Standards contain provisions which, through reference in this text, constitute provisions of this Recommendation | International Standard. At the time of publication, the editions indicated were valid. All Recommendations and Standards are subject to revision, and parties to agreements based on this Recommendation | International Standard are encouraged to investigate the possibility of applying the most recent editions of the Recommendations and Standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards. The Telecommunication Standardization Bureau of the ITU maintains a list of currently valid ITU-T Recommendations.

2.1 Identical Recommendations | International Standards

- ITU-T Recommendation X.200 (1994) | ISO/IEC 7498-1:1994, *Information technology – Open Systems Interconnection – Basic Reference Model: The Basic Model.*
- ITU-T Recommendation X.210 (1993) | ISO/IEC 10731:1994, *Information technology – Open Systems Interconnection – Basic Reference Model: Conventions for the definition of OSI services.*