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Information technology — Open Systems Interconnection — Connectionless protocol for the Association Control Service Element: Protocol specification

*Technologies de l'information — Interconnexion de systèmes ouverts
(OSI) — Élément de service de contrôle d'association: Spécification du
protocole*



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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 10035-1 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 21, *Open systems interconnection, data management and open distributed processing*, in collaboration with ITU-T. The identical text is published as ITU-T Recommendation X.237.

This second edition cancels and replaces the first edition (ISO/IEC 10035:1991), which has been technically revised.

ISO/IEC 10035 consists of the following parts, under the general title *Information technology — Open Systems Interconnection — Connectionless protocol for the Association Control Service Element*:

- *Part 1: Protocol specification*
- *Part 2: Protocol Implementation Conformance Statement (PICS) proforma*

Annex A forms an integral part of this part of ISO/IEC 10035. Annex B is for information only.

Introduction

This Protocol Specification 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 and International Standards in the set as defined by the Reference Model for Open Systems Interconnection (see ITU-T Rec. X.200 | ISO/IEC 7498-1). The reference model subdivides the areas of standardization for interconnection into a series of layers of specification, each of manageable size.

The goal of Open Systems Interconnection is to allow, with a minimum of technical agreement outside the interconnection Recommendations and International Standards, the interconnection of information processing systems:

- from different manufacturers;
- under different managements;
- of different levels of complexity; and
- of different technologies.

This Protocol Specification specifies the protocol for the A-UNIT-DATA service for the Association Control Service Element (ACSE). The A-UNIT-DATA service provides for information transfer between application-entities utilizing the connectionless presentation service. This service is intended to be applicable to a wide range of application process communication requirements.

This Protocol Specification includes an annex that describes the protocol machine of ACSE in terms of a state table. This protocol machine is referred to as the Association Control Protocol Machine (ACPM).

The protocol defined in this Protocol Specification uses the connectionless presentation-service (see ITU-T Rec. X.216 | ISO/IEC 8822).

INTERNATIONAL STANDARD

ITU-T RECOMMENDATION

INFORMATION TECHNOLOGY – OPEN SYSTEMS INTERCONNECTION – CONNECTIONLESS PROTOCOL FOR THE ASSOCIATION CONTROL SERVICE ELEMENT: PROTOCOL SPECIFICATION

1 Scope

The ACSE supports two modes of communication: connection-oriented and connectionless. The ACSE Service Definition (see ITU-T Rec. X.217 | ISO/IEC 8649) includes both modes of communication. This Recommendation | International Standard provides the protocol specification of the connectionless mode of communication. The protocol specification for the connection-oriented mode of communication is contained in ITU-T Rec. X.227 | ISO/IEC 8650-1.

This Protocol Specification specifies:

- a) procedures for the transfer of information, between application-entities; and
- b) the abstract syntax for the representation of the A-UNIT-DATA ACSE APDU.

The A-UNIT-DATA procedure is defined in terms of:

- a) the interactions between peer ACSE protocol machines by the use of connectionless presentation-service; and
- b) the interaction between an ACSE protocol machine and its service-user.

These procedures are applicable to instances of communication between systems which wish to communicate in an open systems interconnection environment in a connectionless mode.

This Protocol Specification also specifies conformance requirements for systems implementing this procedure. It does not contain tests which can be used to demonstrate conformance.

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 edition 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.207 (1993) | ISO/IEC 9545:1994, *Information technology – Open Systems Interconnection – Application Layer structure*.