INTERNATIONAL STANDARD

ISO/IEC 10026-4

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Information technology — Open Systems Interconnection — Distributed Transaction Processing: Protocol Implementation Conformance Statement (PICS) proforma

Technologies de l'information — Interconnexion de systèmes ouverts (OSI) — Traitement transactionnel réparti: Formulaire de déclaration de conformité de mise en œuvre du protocole (PICS)

Reference number
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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 10026-4 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.863.

ISO/IEC 10026 consists of the following parts, under the general title *Information technology — Open Systems Interconnection — Distributed Transaction Processing*:

- *Part 1: OSI TP Model*
- *Part 2: OSI TP Service*
- *Part 3: Protocol specification*
- *Part 4: Protocol Implementation Conformance Statement (PICS) proforma*
- *Part 5: Application context proforma and guidelines when using OSI TP*
- *Part 6: Unstructured data*
- *Part 7: Message queueing*
- *Part 8: Transactional RPC*

Annex A forms an integral part of this part of ISO/IEC 10026. Annex B is for information only.

Introduction

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

The aim of Open Systems Interconnection is to allow, with a minimum of technical agreement outside the interconnection standards, the interconnection of computer systems:

a) from different manufacturers;

b) under different management;

c) of different levels of complexity; and,

d) of different technologies.

The Recommendations | International Standard for OSI TP define a TP Model, a TP Service and specify a TP communications Protocol available within the Application Layer of the OSI Reference Model. The TP Service is of the category defined in the Application Layer Structure standard. It is concerned with identifiable information which can be related as transactions, which may involve two or more open systems.

The Recommendations | International Standard for OSI TP defines a basic TP Service. It provides sufficient facilities to support transaction processing, and establishes a framework for coordination across multiple TP resources in separate Open Systems.

The Recommendations | International Standard for OSI TP does not specify the interface to local resources or access facilities that are provided within the local system. However detailed consideration of access to the local resources and their management may lead to some enhancement in a future revision of the Recommendations | International Standard.

To evaluate conformance of a particular implementation, it is necessary to have a statement of which capabilities and options have been implemented for a given OSI protocol. Such a statement is called a Protocol Implementation Conformance Statement (PICS).

The PICS Proforma, Annex A, has been designed to be a self contained section of this Recommendation | Part of ISO/IEC 10026 for use in testing and procurement.

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ITU-T RECOMMENDATION

INFORMATION TECHNOLOGY – OPEN SYSTEMS INTERCONNECTION – DISTRIBUTED TRANSACTION PROCESSING: PROTOCOL IMPLEMENTATION CONFORMANCE STATEMENT (PICS) PROFORMA

1 Scope

This Recommendation | International Standard provides the PICS proforma for the Distributed Transaction Processing protocol as specified in ITU-T Rec. X.862 | ISO/IEC 10026-3 in compliance with the relevant requirements, and in accordance with the relevant guidance, given in CCITT Rec. X.291 | ISO/IEC 9646-2. Details of the use of this proforma is provided in this Recommendation | Part of ISO/IEC 10026. Implementors of implementations claiming conformance to ITU-T Rec. X.862 | ISO/IEC 10026-3 shall complete the proforma as part of the conformance requirements. The level of detail required in the proforma exceeds that of the protocol specification by requiring details to uniquely identify the implementation and the supplier.

NOTE – PICS are related to base standards and only base standards. PICS Proforma structure might be expanded and refined for other documents (e.g. ISPs) using the base standards (e.g. ISPICS Proforma).

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 ITU maintains a list of currently valid ITU-T Recommendations.

References used in this TP PICS are defined in CCITT Rec. X.860 | ISO/IEC 10026-1 (TP Model), with the addition of those listed below:

2.1 Identical Recommendations | International Standards

- ITU-T Recommendation X.225[1] | ISO/IEC 8327-1:...:[1], *Information technology – Open Systems Interconnection – Connection-oriented session protocol: Protocol specification.*
- ITU-T Recommendation X.226 (1994) | ISO/IEC 8823-1:1994, *Information technology – Open Systems Interconnection – Connection-oriented presentation protocol: Protocol specification.*

2.2 Paired Recommendations | International Standards equivalent in technical content

- CCITT Rec. X.290 (1992) | ISO/IEC 9646-1:1994, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 1: General concepts.*
- CCITT Rec. X.291 (1992) | ISO/IEC 9646-2:1994, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 2: Abstract test suite specification.*
- ITU-T Rec. X.862 (1993) | ISO/IEC 10026-3:1992, *Information technology – Open Systems Interconnection – Distributed transaction processing – Part 3: Protocol specification.*

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[1] Previously equivalent texts; to be republished as common text.