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МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

Information processing systems — Data communications — Protocol for providing the connectionless-mode network service

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Systemes de traitement de l'information — Communications de données — Protocole fournissant le service de réseau en mode sans connexion
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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 8473 was prepared by Technical Committee ISO/TC 97, *Information processing systems*.

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Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

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0 Introduction

ISO 8473 is one of a set of International Standards produced to facilitate the interconnection of open systems. The set of standards covers the services and protocols required to achieve such interconnection.

This International Standard is positioned with respect to other related standards by the layers defined in ISO 7498. In particular, it is a protocol of the Network Layer. This International Standard may be used between Network entities in End systems or in Network Layer relay systems (or both). It provides the connectionless-mode Network Service as defined in ISO 8348/Add.1.

The interrelationship of these standards is illustrated in figure 1.

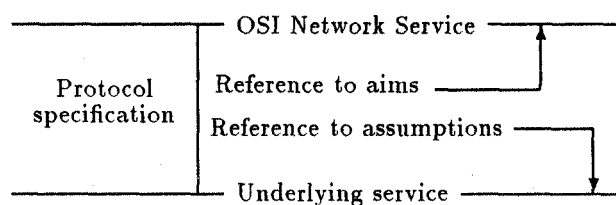


Figure 1 — Interrelationship of standards

1 Scope and field of application

This International Standard specifies a protocol which is used to provide the connectionless-mode Network Service as described in ISO 8348/Add.1. The protocol relies upon the provision of an underlying connectionless-mode service by real subnetworks and/or data links.

The underlying connectionless-mode service assumed by the protocol may be obtained either directly, from a connectionless-mode real subnetwork, or indirectly, through the operation of an appropriate Subnetwork Dependent Convergence function (SNDCF) or protocol (SNDCP) over a connection-mode real subnetwork, as described in ISO 8648. This International Standard specifies the way in which this underlying connectionless-mode subnetwork service is obtained from real subnetworks that conform to ISO 8802-2 or ISO 8208. The underlying connectionless-mode subnetwork service may be obtained from real subnetworks that do not conform to either ISO 8802-2 or ISO 8208, but the way in which this is done is not specified by this International Standard.

NOTE — The SNDCF defined for the operation of this protocol in configurations that include a subnetwork using the X.25 PLP can be generalized in a straightforward way to cover the operation of ISO 8473 in configurations that include subnetworks that use connection-oriented protocols other than the X.25 PLP.

This International Standard specifies

- a) procedures for the connectionless transmission of data and control information from one Network entity to a peer Network entity;
- b) the encoding of the protocol data units (PDUs) used for the transmission of data and control information, comprising a variable-length protocol header format;
- c) procedures for the correct interpretation of protocol control information; and
- d) the functional requirements for implementations claiming conformance to this International Standard.

The procedures are defined in terms of

- a) the interactions among peer Network entities through the exchange of protocol data units;
- b) the interactions between a Network entity and a Network Service user through the exchange of Network Service primitives; and
- c) the interactions between a network-entity and an underlying service provider through the exchange of service primitives.

2 References

ISO 7498, *Information processing systems — Open systems interconnection — Basic reference model.*

ISO 7498/Add.1, *Information processing systems — Open systems interconnection — Basic reference model. Addendum 1: Connectionless-mode transmission.*

ISO 8208, *Information processing systems — Data communications — X.25 Packet Level Protocol for Data Terminal Equipment.*

ISO 8348, *Information processing systems — Data communications — Network service definition.*

ISO 8348/Add.1, *Information processing systems — Data communications — Network service definition — Addendum 1: Connectionless-mode transmission.*

ISO 8348/Add.2, *Information processing systems — Data communications — Network service definition — Addendum 2: Network layer addressing.*

ISO/TR 8509, *Information processing systems — Open Systems Interconnection — Service conventions.*

ISO 8648, *Information processing systems — Open Systems Interconnection — Internal organization of the Network layer.*

ISO 8802, *Information processing systems — Data communications — Local Area Networks.*

ISO 8886, *Information processing systems — Data communication — Data link service definition for Open Systems Interconnection¹.*

ISO 9074, *Information processing systems — Open systems interconnection — ESTELLE (Formal Description Technique based on an Extended State Transition Model)¹.*

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¹At present, at the stage of draft; publication anticipated in due course.