

AS/NZS 4229.1:1994
ISO/IEC ISP 10608-1:1992

AS/NZS 4229.1

Australian/New Zealand Standard

**Information technology—
International standardized profile
TAnnnn—Connection-mode
transport service over
connectionless-mode network
service**

**Part 1: General overview and
subnetwork-independent
requirements**

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AS/NZS 4229.1:1994

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Information technology— International standardized profile TAnnnn—Connection-mode transport service over connectionless-mode network service

Part 1: General overview and subnetwork-independent requirements

First published as Joint Standard AS/NZS 4229.1:1994.

PUBLISHED JOINTLY BY:

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Homebush NSW 2140 Australia

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Wellington 6001 New Zealand

ISBN 0 7262 9114 5



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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee IT/1 on Information Systems—Interconnection. It is identical with and has been reproduced from ISO/IEC ISP 10608-1:1992, *Information technology—International Standardized Profile TAnnnn—Connection-mode Transport Service over Connectionless-mode Network Service*, Part 1: *General overview and subnetwork-independent requirements*.

This Standard is issued as a Joint Standard under the terms of the Active Cooperation Agreement between Standards Australia and Standards New Zealand.

The objective of this Standard is to provide users of the OSI 7-layer network with a combination of OSI Standards which collectively provide the connection-mode transport service using the connectionless-mode network service.

This Standard is Part 1 of AS/NZS 4229, *Information technology—International standardized profile TAnnnn—Connection-mode transport service over connectionless-mode network service* which is published in the following parts (other parts are being prepared):

Part 1: General overview and subnetwork-independent requirements

Part 2: TA51 profile including subnetwork-dependent requirements for CSMA/CD local area networks

Part 5: TA1111/TA1121 profiles including subnetwork-dependent requirements for X.25 packet-switched data networks using virtual calls

This Standard is one of a series of Open Systems Interconnection (OSI) Standards which are currently under development. Since OSI Standards are developmental, there may be some minor difficulties encountered in their implementation. For this reason, Standards Australia will be providing, through the OSI Help Desk, a service to coordinate and disseminate information concerning difficulties which are identified in using this Standard.

Users of this Standard are advised by Standards Australia and Standards New Zealand, under arrangements made with ISO and IEC, as well as certain other Standards organizations, that the number of this Standard is not reproduced on each page; its identity is shown only on the cover and title pages.

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- (a) *Terminology* The words 'this Australian/New Zealand Standard' should replace the words 'this International Standard' wherever they appear.
- (b) *Decimal marker* Substitute a full point for a comma where it appears as a decimal marker.
- (c) *References* The following references to international Standards should remain unchanged, since there are no equivalent Australian or Joint Australian/New Zealand Standards:

<i>Reference to International Standard or other publication</i>	<i>Australian or Joint Australian/New Zealand Standard</i>
ISO	
8072 Information processing systems— Open Systems Interconnection— Transport service definition	—
8348 Information processing systems— Data communications—Network service definition	—
8348/Add.1 Addendum 1: Connectionless- mode transmission	—

ISO

8348/Add.2 Addendum 2: Network layer —
addressing

8473 Information processing sys- —
tems—Data communications—
Protocol for providing the
connectionless-mode network
service

ISO/IEC

8073 Information processing systems— —
Open Systems Interconnection—
Connection oriented transport
protocol specification

8073/Add.2 Addendum 2: Class four opera- —
tion over connectionless network
service

8073/Amd.3 Amendment 3: Protocol imple- —
mentation conformance statement
(PICS) proforma

8073/Cor.1 Technical corrigendum 1 —

8073/Cor.2 Technical corrigendum 2 —

8073/Cor.4 Technical corrigendum 4 —

8073/Cor.5 Technical corrigendum 5 —

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AUSTRALIAN/NEW ZEALAND STANDARD

Information technology - International Standardized Profile TAnnnn - Connection-mode Transport Service over Connectionless-mode Network Service

Part 1: General overview and subnetwork-type independent requirements

1 Scope

This part of ISO/IEC ISP 10608 is applicable to end systems concerned with operating in the Open Systems Interconnection (OSI) environment. It specifies a combination of OSI standards, which collectively provide the Connection-mode Transport Service using the Connectionless-mode Network Service.

This part of ISO/IEC ISP 10608 is applicable to the provision of the Connection-mode Transport Service in end systems attached to any type of subnetwork from which the standardized Connectionless-mode Network Service can be made available.

Profiles of the Connection-mode Transport Service over Connectionless-mode Network Service are members of a single group, Group TA, and support a single transport class, i.e., Class 4.

2 Normative References

The following documents contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC ISP 10608. 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 10608 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 the CCITT maintains published editions of its current Recommendations.

ISO 8072:1986, *Information processing systems - Open Systems Interconnection - Transport service definition*.

(See also CCITT Recommendation X.214 -1988).

ISO/IEC 8073:1988, *Information processing systems - Open Systems Interconnection - Connection oriented transport protocol specification*.

(See also CCITT Recommendation X.224 -1988).

ISO/IEC 8073:1988 /Add.2: 1989, *Information processing systems - Open Systems Interconnection - Connection oriented transport protocol specification - Addendum 2: Class four operation over connectionless network service*.

ISO/IEC 8073:1988 /Amd.3: 1992, *Information processing systems - Open Systems Interconnection - Connection oriented transport protocol specification - Amendment 3: Protocol implementation conformance statement (PICS) proforma*.

ISO/IEC 8073: /Cor.1:1990, *Information processing systems - Open Systems Interconnection - Connection oriented transport protocol specification - Technical corrigendum 1*.

ISO/IEC 8073: /Cor.2:1990, *Information processing systems - Open Systems Interconnection - Connection oriented transport protocol specification - Technical corrigendum 2*.

ISO/IEC 8073: /Cor.4:1991, *Information processing systems - Open Systems Interconnection - Connection oriented transport protocol specification - Technical corrigendum 4*.

ISO/IEC 8073: /Cor.5:1991, *Information processing systems - Open Systems Interconnection - Connection*

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oriented transport protocol specification - Technical corrigendum 5.

ISO 8348: 1987, *Information processing systems - Data communications - Network service definition.*

(See also CCITT Recommendation X.213 - 1988).

ISO 8348: /Add.1: 1987, *Information processing systems - Data communications - Network service definition - Addendum 1: Connectionless-mode transmission.*

ISO 8348: /Add.2: 1988, *Information processing systems - Data communications - Network service definition - Addendum 2: Network layer addressing.*

ISO 8473: 1988, *Information processing systems - Data communications - Protocol for providing the connectionless-mode network service.*

3 Definitions

All of the terms used in this part of ISO/IEC ISP 10608 are defined either in the referenced base standards (see clause 2) or in the International Standards listed in annex E.

4 Abbreviations

All of the abbreviations and acronyms used in this part of ISO/IEC ISP 10608 are defined either in the referenced base standards (see clause 2) or in the International Standards listed in annex E.

5 Subnetwork-type Independent Requirements

5.1 General

The requirements stated in this clause apply uniformly to all conforming end systems, without regard to the type of subnetworks to which those end systems might be attached. Additional requirements apply to end systems according to the type of subnetworks to which they are attached; these requirements are specified in subsequent parts of ISO/IEC ISP 10608.

5.2 Transport Layer Requirements

This part of ISO/IEC ISP 10608 specifies provision of the connection-mode Transport Service, as defined in ISO 8072, using class 4 of the connection-mode Transport Protocol, as defined in ISO 8073 and ISO 8073/Add.2 which defines operation of class 4 over the connectionless-mode Network Service.

Additional requirements are given in annex A and C which define the IPRL for the Transport protocol. Annex B contains defect reports related to ISO/IEC 8073 along with the statement of any consequential requirements for implementors of these profiles.

5.2.1 Static conformance requirements

A conforming implementation shall

- a) satisfy the conformance requirements as stated in clause 14 of ISO 8073.
- b) support of the mandatory features for class 4 over CLNS as defined in ISO 8073 and ISO 8073/Add.2.
- c) if it claims to be capable of initiating TC establishment, be capable of demonstrating the sending of a CR TPDU with
 - 1) class 4 as the preferred class.
- d) if it claims to be capable of responding to TC establishment, be capable of demonstrating the acceptance of a CR TPDU with class 4 as the preferred class.
- e) if it claims to be capable of initiating TC establishment, be capable of
 - 1) transmitting a Called TSAP-ID field in a CR TPDU,
 - 2) when necessary, transmitting a Calling TSAP-ID field in a CR TPDU that can convey any one of the Transport Selectors implemented by the system.
- f) if it claims to be capable of responding to a TC establishment attempt, be capable of