AS/NZS ISO/IEC 13235.3:2006
ISO/IEC 13235-3:1998

AS/NZS ISO/IEC 13235.3:2006

Australian/New Zealand Standard™

# Information technology—Open Distributed Processing—Trading function

# Part 3: Provision of Trading Function using OSI Director Service


This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee IT-015, Software and Systems Engineering. It was approved on behalf of the Council of Standards Australia on 27 October 2006 and on behalf of the Council of Standards New Zealand on 10 November 2006.
This Standard was published on 11 December 2006.

---

The following are represented on Committee IT-015:

Australian Computer Society
Australian Electrical and Electronic Manufacturers Association
Australian Society or Technical Communications
Australian Software Metrics Association
Engineers Australia/ACTS Joint Board in Software Engineering
Griffith University
National Association of Testing Authorities Australia
National ICT Australia
New Zealand Organisation for Quality
Software Quality Association, ACT
Software Quality Association, NSW
Systems Engineering Society of Australia
The University of Queensland
University of Auckland, NZ
University of South Australia
University of Technology, Sydney
Vendor Interests, NZ

---

## Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Web Shop at www.standards.com.au or Standards New Zealand web site at www.standards.co.nz and looking up the relevant Standard in the on-line catalogue.

Alternatively, both organizations publish an annual printed Catalogue with full details of all current Standards. For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown on the back cover.

---

*This Standard was issued in draft form for comment as DR 06506.*

Australian/New Zealand Standard™

# Information technology—Open Distributed Processing—Trading function

# Part 3: Provision of Trading Function using OSI Director Service

First published as AS/NZS ISO/IEC 13235.3:2006.



Jointly published by Standards Australia, GPO Box 476, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

ISBN 0 7337 7905 0

# PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee IT-015, Software and Systems Engineering.

The objective of this Standard is to provide organizations with a specification which describes how the Open Distributed Processing (ODP) Trading Function can be realised using information entries and support mechanisms of the Open Systems Interconnection (OSI) Directory. This Specification is to be used in conjunction with the ODP Trading Function Standard (ITU-T Rec. X.950. ISO/IEC 13235-1).

This Standard is identical with, and has been reproduced from ISO/IEC 13235-3:1998, *Information technology—Open Distributed Processing—Trading Function*—Part 3: *Provision of Trading Function using OSI Directory service*.

As this Standard is reproduced from an international standard, the following applies:

(a) Its number appears on the cover and title page while the international standard number appears only on the cover.

(b) In the source text 'this Specification' should read 'this Australian/New Zealand Standard'.

(c) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

| *Reference to International Standard* | | *Australian/New Zealand Standard* | |
|---|---|---|---|
| ISO/IEC | | AS/NZS | |
| 9594 | Information technology—Open Systems Interconnection—The Directory: | 4019 | Information technology—Open Systems Interconnection—The Directory |
| 9594-1 | Part 1: Overview of concepts, models and services | 4019.1 | Part 1: Overview of concepts, models and services |
| 9594-2 | Part 2: Models | 4019.2 | Part 2: Models |
| 9594-3 | Part 3: Abstract service definition | 4019.3 | Part 3: Abstract service definition |
| 9594-4 | Part 4: Procedures for distributed operation | 4019.4 | Part 4: Procedures for distributed operation |
| 9594-5 | Part 5: Protocol specifications | 4019.5 | Part 5: Protocol specifications |
| 9594-6 | Part 6: Selected attribute types | 4019.6 | Part 6: Selected attribute types |
| 9594-7 | Part 7: Selected object classes | 4019.7 | Part 7: Selected object classes |
| 8824 | Information technology—Abstract Syntax Notation One (ASN.1) | 8824 | Information technology—Abstract syntax notation one |
| 8824-1 | Part 1: Specification of basic notation | 8824.1 | Part 1: Specification of basic notation |
| 8824-2 | Part 2: Information object specification | 8824.2 | Part 2: Information object specification |
| 8824-3 | Part 3: Constraint specification | 8824.3 | Part 3: Constraint specification |
| 8824-4 | Part 4: Parameterization of ASN.1 | 8824.4 | Part 4: Parameterization of ASN.1 |
| 13235 | Information technology—Open Distributed Processing—Trading function | 13235 | Information technology—Open Distributed Processing—Trading function |
| 13235-1 | Part 1: Specification | 13235.1 | Part 1: Specification |

Only the normative references that have been adopted as Australian or Australian/New Zealand Standards have been listed.

# CONTENTS

*Page*

Page

*Page*

# INTRODUCTION

The ODP Trading Function (see ITU-T Rec. X.950-Series | ISO/IEC 13235) provides the means to offer a service and the means to discover services that have been offered. ITU-T Rec. X.950 | ISO/IEC 13235-1 defines an enterprise Specification, an information Specification and a computational Specification of this Trading Function. No engineering Specification is defined in ITU-T Rec. X.950 | ISO/IEC 13235-1. This Recommendation | International Standard describes how the Specifications of the Trading Function in ITU-T Rec. X.950 | ISO/IEC 13235-1 can be engineered using OSI Directory Service (see ITU-T Rec. X.500 | ISO/IEC 9594-1) to store information and to provide support mechanisms. This Specification does not prescribe that a trader must be engineered by using OSI Directory. But if OSI Directory is used, this Specification defines standardised templates for information entries (e.g. service offer and link information objects) in the Directory DIT.

Clause 5 gives an overview of how the Trading Function is implemented as a combination of X.500 DUA and DSA. The X.500 DSA is used to store the Trader Information Object and a Trader DUA (T-DUA) implements the functionality required by a Trader, which is difficult, or impossible, to implement using OSI Directory services.

Clause 6 defines the standardised templates for information entries of the Trader Information Object, the information known to a particular Trader.

Clause 7 describes mapping of Trading Function operations to appropriate Directory operations.

Clause 8 specifies a minimal Type Repository Function necessary to enable the correct functioning of the X.500 Directory for Trading.

Clause 9 describes the mechanisms used to enable the handling of dynamic properties of a Trader’s service offers.

This Specification contains two annexes.

Annex A is a normative schema definition of Trader definitions.

Annex B is an informative schema definition of a sample service description.

AUSTRALIAN/NEW ZEALAND STANDARD

# Information technology—Open Distributed Processing—Trading function

## Part 3: Provision of Trading Function using OSI Director Service

## 1 Scope and field of application

This Specification describes how the ODP Trading Function can be realised using information entries and support mechanisms of the OSI Directory. This Specification is to be used in conjunction with the ODP Trading Function Standard (ITU-T Rec. X.950 | ISO/IEC 13235-1). If there are any discrepancies between the prescriptive statements in ITU-T Rec. X.950 | ISO/IEC 13235-1 and those in this Specification, the prescriptive statements in ITU-T Rec. X.950 | ISO/IEC 13235-1 take precedence.

The scope of this Specification is:

- standardised templates for Trading Function information objects in the DIT;
- descriptions of mapping of Trading Function operations to appropriate Directory operations;
- description of use of other Directory features to provide the support mechanisms for implementing the ODP Trading Function.

This Specification does not prescribe that a trader must be engineered by using OSI Directory. But if OSI Directory is used, this Specification defines standardised templates for information entries (e.g. service offer and link information objects) in the Directory DIT. This Specification does not put any restrictions on where these entries are placed in the Directory DIT. That is, this Specification does not standardise any structure rules. This Specification does describe a mechanism to provide the Trading Function using OSI Directory.

The field of application of this Specification is for the construction of the ODP Trading Function using the OSI Directory, when required.

## 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 posibility of applying the most recent edition of the Recommendations and Standards listed below. Members of IEC and ISO maintain registers of currently valid Internationa 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.500 (1993) | ISO/IEC 9594-1:1995, *Information technology – Open Systems Interconnection – The Directory: Overview of concepts, models and services.*
- ITU-T Recommendation X.501 (1993) | ISO/IEC 9594-2:1995, *Information technology – Open Systems Interconnection – The Directory: Models.*
- ITU-T Recommendation X.509 (1993) | ISO/IEC 9594-8:1995, *Information technology – Open Systems Interconnection – The Directory: Authentication framework.*
- ITU-T Recommendation X.511 (1993) | ISO/IEC 9594-3:1995, *Information technology – Open Systems Interconnection – The Directory: Abstract service definition.*
- ITU-T Recommendation X.519 (1993) | ISO/IEC 9594-5:1995, *Information technology – Open Systems Interconnection – The Directory: Protocol specifications.*