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Australian Standard®

Information processing systems—Open Systems Interconnection—Basic reference model

Part 4: Management framework

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PREFACE

This Standard was prepared by the Standards Australia Committee on Information Systems — Interconnection. It is identical with and has been reproduced from International Standard ISO 7498-4—1988. *Information processing systems—Open Systems Interconnection—Basic Reference Model*—Part 4: *Management framework.*

The 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.

Under arrangements made between Standards Australia and the International Standards Bodies, ISO and IEC, as well as certain other Standards organizations, users of this Australian Standard are advised of the following:

(a) Copyright is vested in Standards Australia.

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For the purpose of this Australian Standard, the text of the ISO Standard given herein should be modified as follows:

(i) *Terminology* The words 'Australian Standard' should replace the words 'International Standard' wherever they appear.

(ii) *References* The references to International Standards should be replaced by references to Australian Standards as follows:

Reference to International Standard		*Australian Standard*	
ISO/IEC		AS	
7498	Information processing systems—Open Systems Interconnection—Basic Reference Model	2777	Information processing systems—Open Systems Interconnection—Basic reference model
7498-2	Information processing systems—Open Systems Interconnection—Basic Reference Model—Part 2: Security Architecture	2777.2	Information processing systems—Open Systems Interconnection—Basic reference model—Part 2: Security architecture

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Introduction

The Basic Reference Model of Open Systems Interconnection (OSI), ISO/IEC 7498, provides a description of the activities necessary for systems to interwork using communication media. This part of ISO/IEC 7498 forms Part 4 of ISO/IEC 7498 and provides a description of the framework and structure of OSI Management in a way that supplements and clarifies the description of management contained in ISO/IEC 7498.

The purpose of this part of ISO/IEC 7498 is to provide a common basis for the coordinated development of management standards.

It is also the purpose of this part of ISO/IEC 7498 to identify areas for developing or improving standards, and to provide a common reference for maintaining consistency of all related standards. It is not the intent of this part of ISO/IEC 7498 either to serve as an implementation specification, or to be a basis for appraising the conformance of actual implementations, or to provide a sufficient level of detail to define precisely the services and protocols of the management architecture. Rather, this part of ISO/IEC 7498 provides a conceptual and functional framework which allows independent teams of experts to work productively on the development of management standards.

This part of ISO/IEC 7498 provides an extension to ISO/IEC 7498 and therefore assumes as a basis the concepts and terminology included therein. The objective of this document is to describe a framework for those management activities pertinent to OSI, and to identify the management services which are supported by OSI Management protocols.

The description of the Management Framework given in this part of ISO/IEC 7498 is developed in stages:

Clause 1 defines the scope of this part of ISO/IEC 7498.

Clause 2 lists related OSI Standards.

Clause 3 defines terms and abbreviations used in this part of ISO/IEC 7498.

Clause 4 provides the description of general concepts relating to management.

Clause 5 defines a model for OSI Management.

Clause 6 introduces the areas of OSI Management standardization, specifies how each of the component parts of OSI Management operate and defines the form of management information exchanges.

Management is manifest in a number of ways. Management is related to activities which control or monitor the use of resources. Within *Open Systems* the resources can be those which provide data storage or processing capabilities, or they can be those which provide interconnection capabilities. It is only the latter and the communications concerning their management which fall within the scope of OSI Management standardization.

Human beings are ultimately responsible for managing the OSI Environment, although responsibilities may be delegated to automated processes.

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1 Scope

This part of ISO/IEC 7498 establishes a framework for coordinating the development of existing and future standards for OSI Management, and is provided for reference by those standards.

It

a) defines terminology of and describes concepts for OSI Management;

b) provides a structure for OSI Management together with an overview of the objectives of and facilities provided by OSI Management; and

c) describes OSI Management activities.

This part of ISO/IEC 7498 does not specify services or protocols for OSI Management. It is neither an implementation specification for systems, nor a basis for appraising the conformance of implementations.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 7498. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO/IEC 7498 are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO/IEC 7498:1984, *Information processing systems—Open Systems Interconnection —Basic Reference Model.*

ISO/IEC 7498-2:1988, *Information processing systems—Open Systems Interconnection—Basic Reference Model—Part 2: Security Architecture.*

3 Definitions and abbreviations

3.1 This part of ISO/IEC 7498 makes use of the OSI terminology defined in ISO/IEC 7498, specifically:

a) (N)-entity

b) (N)-layer

c) (N)-protocol

d) (N)-protocol-data-unit

e) open system

f) systems management

3.2 Terms defined in ISO/IEC 7498 which are redefined for the purposes of this part of ISO/IEC 7498:

3.2.1 Systems management application-entity: An application-entity for the purpose of systems management communication.

3.3 For the purpose of this part of ISO/IEC 7498, the following definitions apply:

3.3.1 OSI Management: The facilities to control, coordinate and monitor the resources which allow communications to take place in the OSI Environment.

3.3.2 (N)-layer operation: The monitoring and control of a single instance of communication.

3.3.3 Managed object: The OSI Management view of a resource within the OSI Environment that may be managed through the use of OSI Management protocol(s).

3.3.4 Management Information Base: The conceptual repository of management information within an open system.