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**Information processing systems — Open
Systems Interconnection — Basic Reference
Model —**

Part 4 :
Management framework

*Systèmes de traitement de l'information — Interconnexion de systèmes ouverts —
Modèle de référence de base —*

Partie 4 : Cadre général de gestion



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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) together form a system for worldwide standardization as a whole. 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 approval before their acceptance as International Standards. They are approved in accordance with procedures requiring at least 75 % approval by the national bodies voting.

International Standard ISO/IEC 7498-4 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

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.

Information processing systems – Open Systems Interconnection – Basic Reference Model –

Part 4 : Management framework

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.

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