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# INTERNATIONAL STANDARD

# ISO/IEC 13244

First edition  
1998-12-15

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## Information technology — Open Distributed Management Architecture —

*Technologies de l'information — Architecture de gestion répartie ouverte*



Reference number  
ISO/IEC 13244:1998(E)

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## Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. 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 voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

International Standard ISO/IEC 13244 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 33, *Distributed application services*, in collaboration with ITU-T. The identical text is published as ITU-T Recommendation X.703.

Annex A to F of this International Standard are for information only.

**INTERNATIONAL STANDARD****ITU-T RECOMMENDATION****INFORMATION TECHNOLOGY – OPEN DISTRIBUTED  
MANAGEMENT ARCHITECTURE****1 Scope**

This Recommendation | International Standard describes the Open Distributed Management Architecture (ODMA). ODMA provides an architecture for the specification and development both of systems management as an open distributed application and of the management of open distributed applications. ODMA also provides the architectural framework for the development of the standards needed within the architecture. The management will be of a distributed nature; this implies:

- distribution of the managing activity;
- management of distributed applications; and
- management of resources that may be distributed.

ODMA is compliant with the ODP-RM, so that in a distributed environment OSI Systems Management can be used in combination with other techniques that are engineered and implemented according to ODP principles.

This Recommendation | International Standard is the base document of a (potential) range of standards and Recommendations to be developed within ODMA. Figure 1 provides an overview of the relationship between this Recommendation | International Standard and other standards.

Other standards that may be developed within ODMA are:

- ODMA supports: Based on the General Framework of ODMA, these standards give descriptions of specific systems support of ODMA. For example, the OSI Systems Management and CORBA support of ODMA have been identified.
- ODMA viewpoint notations: These component standards provide standardised notations for describing the ODP viewpoints for ODMA (see for example Annex D). These notations are described in separate documents for the ODMA viewpoint notations.
- ODMA functions: These component standards describe functions that are necessary for the construction of an Open Distributed Management System. Some example functions like the operation dispatcher function or the notification dispatcher function are outlined in this Recommendation | International Standard.
- ODMA inter-domain functions: These component standards describe the interworking between different paradigms providing support for ODMA, for example, between OSI Systems Management and CORBA.

As illustrated in Figure 1 this Recommendation | International Standard only elaborates a subset of supporting ODMA systems but allows for developments of other clauses. As a consequence, this Recommendation | International Standard consists of two sections:

**1) General Framework**

This clause describes ODMA as a specific interpretation of the Reference Model of Open Distributed Processing for the purpose of management. It introduces general terms that are needed for open distributed management. It may also identify tools for the description of the open distributed management applications.

**2) OSI management support for ODMA**

This clause describes the OSI management support for ODMA. It relates the current OSI systems management concepts to ODMA concepts. However, it extends the current systems management standards to support the distribution of the management activities and the distribution of resources to be managed. As this specific interpretation reflects the current OSI standards, limitations may be imposed. For instance, only a number of distribution transparencies may be supported by the (extended) OSI management mechanisms.

Table 1 illustrates which viewpoints are of relevance for which documents (indicated by plus sign). A plus sign indicates that a document describes the viewpoint.

Although the document is divided in clauses, the concepts of the ODMA are overarching and are meant to be used as a bridging architecture between the different paradigms supporting ODMA.

In Figure 1 the ‘standards and specifications based on ODMA’ represent all the specifications and standards that will be developed using the ODMA standards.

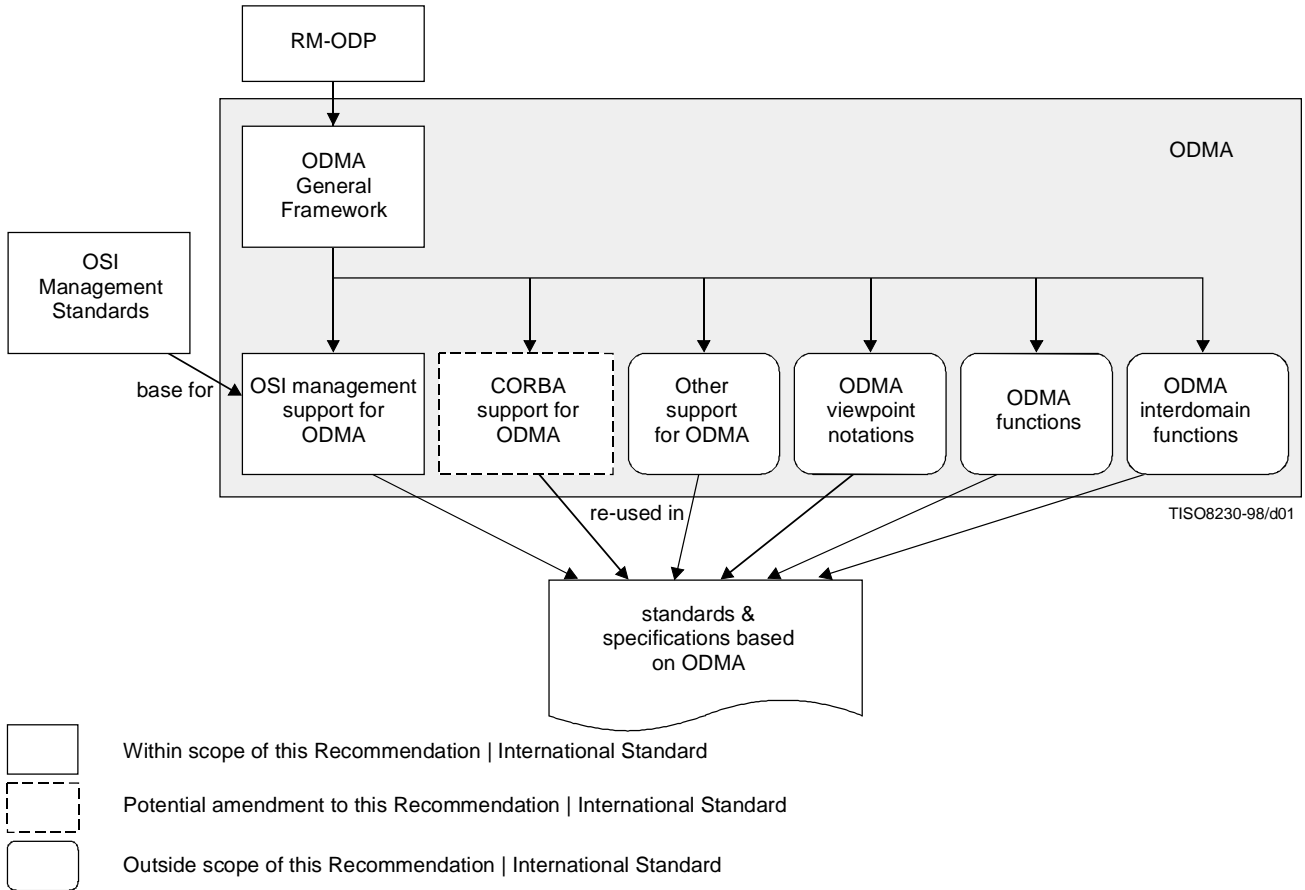


Figure 1 – ODMA document roadmap

Table 1 – Organisation of ODMA documents

	General Framework	OSI management support	CORBA support	...	ODMA functions
Enterprise	+				+
Information	+				+
Computational	+	+	+		+
Engineering	+	+	+		+
Technology					

## 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 possibility of applying the most recent edition of the Recommendations and Standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards. The Telecommunication Standardisation 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.701 (1997) | ISO/IEC 10040:1998, *Information technology – Open Systems Interconnection – Systems management overview.*
- ITU-T Recommendation X.702 (1995) | ISO/IEC 11587:1996, *Information technology – Open Systems Interconnection – Application context for systems management with transaction processing.*
- ITU-T Recommendation X.710 (1997) | ISO/IEC 9595:1998, *Information technology – Open Systems Interconnection – Common management information service.*
- CCITT Recommendation X.720 (1992) | ISO/IEC 10165-1:1993, *Information technology – Open Systems Interconnection – Structure of management information: Management information model.*
- CCITT Recommendation X.721 (1992) | ISO/IEC 10165-2:1992, *Information technology – Open Systems Interconnection – Structure of management information: Definition of management information.*
- CCITT Recommendation X.722 (1992) | ISO/IEC 10165-4:1992, *Information technology – Open Systems Interconnection – Structure of management information: Guidelines for the definition of managed objects.*
- ITU-T Recommendation X.725 (1995) | ISO/IEC 10165-7:1996, *Information technology – Open Systems Interconnection – Structure of management information: General relationship model.*
- CCITT Recommendation X.734 (1992) | ISO/IEC 10164-5:1993, *Information technology – Open Systems Interconnection – Systems Management: Event report management function.*
- CCITT Recommendation X.735 (1992) | ISO/IEC 10164-6:1993, *Information technology – Open Systems Interconnection – Systems Management: Log control function.*
- ITU-T Recommendation X.739 (1993) | ISO/IEC 10164-11:1994, *Information technology – Open Systems Interconnection – Systems Management: Metric objects and attributes.*
- ITU-T Recommendation X.749 (1997) | ISO/IEC 10164-19:1997, *Information technology – Open Systems Interconnection – Systems management domain and management policy management function.*
- ITU-T Recommendation X.750 (1996) | ISO/IEC 10164-16:1997, *Information technology – Open Systems Interconnection – Systems Management: Management knowledge management function.*
- ITU-T Recommendation X.901 (1997) | ISO/IEC 10746-1:1998, *Information technology – Open Distributed Processing – Reference model: Overview.*
- ITU-T Recommendation X.902 (1995) | ISO/IEC 10746-2:1996, *Information technology – Open Distributed Processing – Reference model: Foundations.*
- ITU-T Recommendation X.903 (1995) | ISO/IEC 10746-3:1996, *Information technology – Open distributed processing – Reference Model: Architecture.*
- ITU-T Recommendation X.920 (1997) | ISO/IEC 14750:1998, *Information technology – Open Distributed Processing – Interface Definition Language.*
- ITU-T Recommendation X.950 (1997) | ISO/IEC 13235-1:1998, *Information technology – Open distributed processing – Trading function: Specification.*

## 2.2 Additional references

- ITU-T Recommendation G.805 (1995), *Generic functional architecture of transport networks*.
- ITU-T Recommendation G.851.1 (1996), *Management of the transport network – Application of the RM-ODP framework*.
- ITU-T Recommendation G.852.1 (1996), *Management of the transport network – Enterprise viewpoint for simple subnetwork connection management*.
- ITU-T Recommendation G.853.2 (1996), *Subnetwork connection management information viewpoint*.
- ITU-T Recommendation M.3100 (1995), *Generic network information model*.
- ITU-T Recommendation Q.821 (1993), *Stage 2 and stage 3 description for the Q3 interface – Alarm surveillance*.