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Information technology — International Standardized Profiles — OSI Management — Management functions —

Part 1:

AOM211 — General management capabilities

*Technologies de l'information — Profils normalisés internationaux —
Gestion OSI — Fonctions de gestion —*

Partie 1: AOM211 — Capacité globale de gestion



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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. In addition to developing International Standards, ISO/IEC JTC 1 has created a special group on Functional Standardization for the elaboration of International Standardized Profiles.

An International Standardized Profile is an internationally agreed, harmonized document which identifies a standard or group of standards, together with options and parameters, necessary to accomplish a function or set of functions.

Draft International Standardized Profiles are circulated to national bodies for voting. Publication as an International Standardized Profile requires approval by at least 75 % of the national bodies casting a vote.

International Standardized Profile ISO/IEC ISP 12060-1 was prepared with the collaboration of

- Asia-Oceania Workshop (AOW);
- European Workshop for Open Systems (EWOS);
- Open Systems Environment Implementors' Workshop (OIW).

ISO/IEC ISP 12060 consists of the following parts, under the general title *Information technology - International Standardized Profiles - OSI Management - Management functions*:

- *Part 1: AOM211 - General management capabilities*
- *Part 2: AOM212 - Alarm reporting and state management capabilities*
- *Part 3: AOM213 - Alarm reporting capabilities*
- *Part 4: AOM221 - General event report management*
- *Part 5: AOM231 - General log control*

Annex A forms an integral part of this part of ISO/IEC ISP 12060.

Information technology - International Standardized Profiles - OSI Management - Management functions -

Part 1:

AOM211 - General management capabilities

1 Scope

1.1 General

This part of ISO/IEC ISP 12060 specifies the General management capabilities profile, AOM211, which is applicable to end systems operating in the Open Systems Interconnection (OSI) environment. AOM211 specifies a combination of OSI standards, which collectively provide General management capabilities. These capabilities include the ability to create and delete any managed object instance, retrieve and modify any attribute, report any event, and initiate any action. These capabilities further include a specific set of reporting services for object creation, object deletion, attribute value change, state change, relationship change, and alarm; and attribute modification and retrieval services for a specific set of state and relationship attributes and attribute groups.

AOM211 also specifies use of a combination of standards that collectively provide the Common Management Information Service required by this part of ISO/IEC ISP 12060.

The support of the complete set of operation and notification services and the management attributes does not imply that all these features shall be used in all instances of communications. The selection of the features depends on the requirements of the MIS-users.

The definitions and conventions used in this part of ISO/IEC ISP 12060 are specified in ISO/IEC ISP 12059-0, Common definitions for management function profiles.

1.2 Introduction

AOM211 is applicable in an environment in which end systems are able to take a manager role, an agent role or both. A system acting in the role of a manager is capable of requesting the specified set of operations upon any managed object which is in the system acting in the role of the agent, and receiving notifications which are generated by managed objects in the system acting in the role of the agent.

The specification of the managed objects receiving operations and generating notifications are outside the scope of this profile.

Figure 1 illustrates only one of those configurations, one in which one system is acting in a manager role and a further system is acting in the agent role.

The roles of manager and agent may be determined in advance, for the duration of an association or the duration of a single management interaction. The application context is defined in Systems Management Overview (ISO/IEC 10040).

NOTE – Negotiation of functional units is optional.

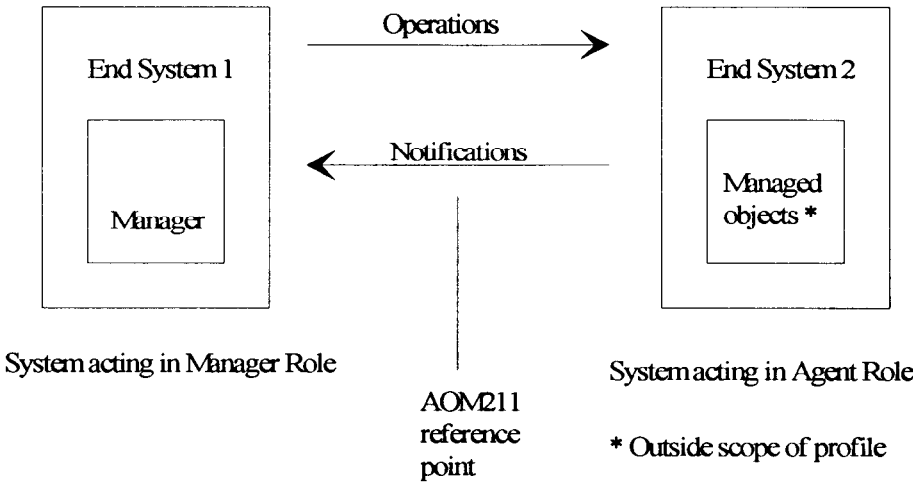


Figure 1 - One scenario of applicability of the AOM211 profile

AOM211 references the following standards.

Application Layer	ISO/IEC 10164-1 ISO/IEC 10164-2 ISO/IEC 10164-3 ISO/IEC 10164-4 ISO/IEC 10165-2 ISO/IEC 9595, 9596-1 ISO/IEC 9072-1, 2 ISO/IEC ISP 11183-2 ISO 8649, 8650 ISO/IEC ISP 11183-1	Object management function State management function Attributes for representing relationships Alarm reporting function Definition of management information CMIS and CMIP ROSE CMISE/ROSE for AOM12 - Enhanced management communications ACSE Specification of ACSE, Presentation and Session
Presentation Layer	ISO 8822, 8823 ISO/IEC 8824, 8825 ISO/IEC ISP 11183-1	Presentation ASN.1 Specification of ACSE, Presentation and Session
Session Layer	ISO 8822, 8823 ISO/IEC 8326/Add.2 ISO/IEC 8327/Add.2 ISO/IEC ISP 11183-1	Session Specification of ACSE, Presentation and Session

AOM211 includes by reference the subset of the Enhanced Management Communications profile (AOM12) that is required to support the above services.

NOTE – Refer to the description of AOM12 for further information about the communications support including specification of the protocol stack.

An end system implementing AOM211 can interwork with an end system implementing the same profile in a complementary role. An end system implementing this profile can also inter work with an end system implementing profiles AOM212 (Alarm reporting and state management capabilities), or AOM213 (Alarm Reporting Capabilities), in a complementary role, in the mode of operation specified by those profiles. A system implementing the Enhanced Management Communications profile (AOM12) will be compatible with the communications aspects of AOM211.

1.3 Position within the Taxonomy

AOM211 is identified in ISO/IEC TR10000-2 as :

AOM	OSI Management
AOM2	Management Functions
AOM21	Management Capabilities
AOM211	General Management Capabilities

AOM211 may be combined with any T-profile (identified in ISO/IEC TR 10000-2) specifying the OSI connection-mode transport service.

2 Normative references

The following documents contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC ISP 12060. 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 12060 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 ITU-T maintains published editions of its current Recommendations.

2.1 Identical CCITT Recommendations | International Standards

- ITU-T Recommendation X.200 (1994) | ISO/IEC 7498-1:1994, *Information technology - Open Systems Interconnection - Basic Reference Model: The Basic Model*.
- ITU-T Recommendation X.210 (1993) | ISO/IEC 10731:1994, *Information technology - Open Systems Interconnection - Basic Reference Model - Conventions for the definition of OSI services*.
- ITU-T Recommendation X.216 (1994) | ISO/IEC 8822:1994, *Information technology - Open Systems Interconnection - Presentation service definition*.
- ITU-T Recommendation X.226 (1994) | ISO/IEC 8823-1:1994, *Information technology - Open Systems Interconnection - Connection-oriented presentation protocol: Protocol specification*.
NOTE — ITU-T Rec. X.216 (1994) | ISO/IEC 8822:1994 and ITU-T Rec. X.226 (1994) | ISO/IEC 8823-1:1994 supersede CCITT Rec. X.216 (1988) | ISO 8822:1988 and CCITT Rec. X.226 (1988) | ISO 8823:1988 respectively. However, when this part of ISO/IEC ISP 12060 was under development, the previous editions were valid and this part of ISO/IEC ISP 12060 is therefore based on these editions, which are listed below.
- CCITT Recommendation X.216 (1988), *Presentation Service Definition for Open Systems Interconnection for CCITT Applications*.
ISO 8822:1988, *Information processing systems - Open Systems Interconnection - Connection oriented presentation service definition*.
- CCITT Recommendation X.226 (1988), *Connection oriented presentation protocol specification*.
ISO 8823:1988, *Information processing systems - Open Systems Interconnection - Connection oriented presentation protocol specification*.
- CCITT Recommendation X.701 (1992) | ISO/IEC 10040:1992, *Information technology - Open Systems Interconnection - Systems management overview*.
- CCITT Recommendation X.712 (1992) | ISO/IEC 9596-2:1993, *Information technology - Open Systems Interconnection - Common management information protocol: Protocol Implementation Conformance Statement (PICS) proforma*.
- 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*.
- CCITT Recommendation X.730 (1992) | ISO/IEC 10164-1:1993, *Information technology - Open Systems Interconnection - Systems Management: Object management function*.
- CCITT Recommendation X.731 (1992) | ISO/IEC 10164-2:1993, *Information technology - Open Systems Interconnection - Systems Management: State management function*.
- CCITT Recommendation X.732 (1992) | ISO/IEC 10164-3:1993, *Information technology - Open Systems Interconnection - Systems Management: Attributes for representing relationships*.