INTERNATIONAL STANDARDIZED PROFILE

ISO/IEC ISP 12060-3

First edition
1995-12-15

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

Part 3:
AOM213 — Alarm reporting capabilities

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

Partie 3: AOM213 — Capacités de rapport d'alarme

Reference number
ISO/IEC ISP 12060-3:1995(E)

Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS
Not for Resale

Contents

Page

Foreword iii

1 Scope 1
1.1 General 1
1.2 Introduction 1
1.3 Position within the Taxonomy 2

2 Normative references 3
2.1 Identical CCITT Recommendations | International Standards 3
2.2 Paired CCITT/ITU-T Recommendations | International Standards equivalent in technical content 3
2.3 Additional references 5

3 Definitions 6

4 Abbreviations 6

5 Conventions 6

6 Conformance requirements 6
6.1 MAPDU support 6
6.1.1 Manager role requirements 7
6.1.2 Agent role requirements 7
6.2 Systems management functional unit 7

Annex A ISPICS Requirements List (IPRL) for AOM213 8
A.1 Management conformance summary 8
A.2 Management capability support 9
A.2.1 MAPDU support 9
A.2.1.1 Alarm reporting MAPDU support 9
A.3 CMIP PDU requirements 12
A.4 Managed object support 13
A.4.1 Introduction 13
A.4.2 Event log record support 13

© ISO/IEC 1995

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

ISO/IEC Copyright Office • Case postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS

Not for Resale

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 Standard-ization 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 12060-3 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.

Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS
Not for Resale

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

Part 3:
AOM213 - Alarm reporting capabilities

1 Scope

1.1 General

This part of ISO/IEC ISP 12060 specifies the Alarm reporting capabilities profile, AOM213, which is applicable to end systems operating in the Open Systems Interconnection (OSI) environment. AOM213 specifies a combination of OSI standards, which collectively provide the Alarm reporting capabilities. These capabilities include the ability to report the alarm notifications.

AOM213 also specifies use of a combination of standards that collectively provide the subset of the Common Management Information Service required by this part of ISO/IEC ISP 12060.

The support of the complete set of notification services 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 functions profiles.

1.2 Introduction

AOM213 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 manager is capable of receiving notifications which are generated by managed objects in the system acting in the role of agent.

The specifications of managed objects are outside the scope of AOM213. Any system that claims to support one or more managed objects, and therefore to conform to a managed object definition, must provide all the capability function services required to perform the operations defined for the managed object and to convey the notifications it generates. Since all managed objects inherit the object class and name binding attributes from top, GET operations on these attributes must be supported. AOM213 does not support the minimum capability services needed by a system that claims support for managed objects.

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.

Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS Not for Resale

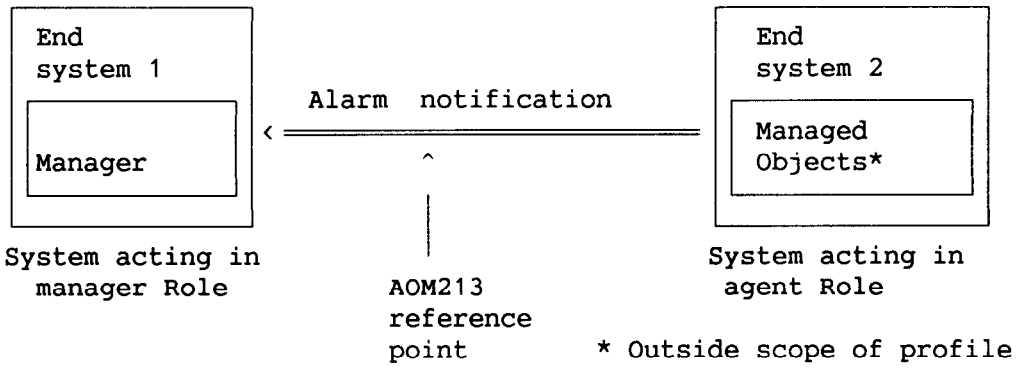


Figure 1 - One scenario of applicability of the AOM213 profile

AOM213 references the following standards.

Application Layer	ISO/IEC 10164-4	Alarm reporting function
	ISO/IEC 10165-2	Definition of management information
	ISO/IEC 9595	CMIS
	ISO/IEC 9596-1	CMIP
	ISO/IEC 9072-1, 2	ROSE
	ISO 8649, 8650	ACSE
	ISO/IEC ISP 11183-3	CMISE/ROSE for AOM11 - Basic management communications
	ISO/IEC ISP 11183-1	Specification of ACSE, Presentation and Session
Presentation Layer	ISO 8822, 8823	Presentation
	ISO/IEC 8824, 8825	ASN.1
	ISO/IEC ISP 11183-1	Specification of ACSE, Presentation and Session
Session Layer	ISO 8326, 8327	Session
	ISO 8326/Add.2	
	ISO 8327/Add.2	
	ISO/IEC ISP 11183-1	Specification of ACSE, Presentation and Session

AOM213 includes by reference the subset of the Basic Management Communications profile (AOM11) that is required to support the above services.

NOTE - Refer to the description of AOM11 for further information about the communications support including specification of the protocol stack.

An end system implementing AOM213 can interwork with an end system implementing the same profile in a complementary role. An end system implementing this profile can also interwork with an end system implementing profiles AOM211 (General Management Capabilities), or AOM212 (Alarm Reporting and State Management Capabilities), in a complementary role, at the common level of functionality. A system implementing the Basic Management Communications profile (AOM11) will be compatible with the communications aspects of AOM213. AOM12 is also compatible with communication aspects of AOM213.

1.3 Position within the Taxonomy

AOM213 is identified in ISO/IEC TR10000-2 as:

AOM - OSI Management
AOM2 - Management Function
AOM21 - Management Capabilities
AOM213 - Alarm Reporting Capabilities

AOM213 may be combined with any T-Profile (see ISO/IEC TR 10000-2) specifying the OSI connection-mode transport service.

Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS Not for Resale

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.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.724 (1993) | ISO/IEC 10165-6:1994, *Information technology - Open Systems Interconnection - Structure of management information: Requirements and guidelines for implementation conformance statement proformas associated with OSI management.*
- CCITT Recommendation X.733 (1992) | ISO/IEC 10164-4:1992, *Information technology - Open Systems Interconnection - Systems Management: Alarm reporting function.*
- CCITT Recommendation X.735 (1992) | ISO/IEC 10164-6:1993, *Information technology - Open Systems Interconnection - Systems Management: Log control function.*

2.2 Paired CCITT/ITU-T Recommendations | International Standards equivalent in technical content

- CCITT Recommendation X.208 (1988), *Specification of abstract syntax notation one (ASN.1).*

  ISO/IEC 8824:1990, *Information technology - Open Systems Interconnection - Specification of Abstract Syntax Notation One (ASN.1).*

Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS
Not for Resale

- CCITT Recommendation X.209 (1988), *Specification of basic encoding rules for abstract syntax notation one (ASN.1).*

  ISO/IEC 8825:1990, *Information technology - Open Systems Interconnection - Specification of Basic Encoding Rules for Abstract Syntax Notation One (ASN.1).*

- CCITT Recommendation X.215 (1988), *Session service definition for Open Systems Interconnection for CCITT applications.*

  ISO 8326:1987, *Information processing systems - Open Systems Interconnection - Basic connection oriented session service definition.*

- CCITT Recommendation X.217 (1988), *Association control service definition for Open Systems Interconnection for CCITT Applications.*

  ISO 8649:1988, *Information processing systems - Open Systems Interconnection - Service definition for the Association Control Service Element.*

- CCITT Recommendation X.219 (1988), *Remote Operations: Model, notation and service definition.*

  ISO/IEC 9072-1:1989, *Information processing systems - Text Communication - Remote Operations - Part 1: Model, notation and service definition.*

- CCITT Recommendation X.225 (1988), *Session protocol specification for Open Systems Interconnection for CCITT applications.*

  ISO 8327:1987, *Information processing systems - Open Systems Interconnection - Basic connection oriented session protocol specification.*

- CCITT Recommendation X.227 (1988), *Association control protocol specification definition for Open Systems Interconnection for CCITT applications.*

  ISO 8650:1988, *Information processing systems - Open Systems Interconnection - Protocol specification for the Association Control Service Element.*

- CCITT Recommendation X.229 (1988), *Remote Operations: Protocol specification.*

  ISO/IEC 9072-2:1989, *Information processing systems - Text communication - Remote Operations - Part 2: Protocol specification.*

- CCITT Recommendation X.290 (1992), *OSI conformance testing methodology and framework for protocol Recommendations for CCITT applications - General concepts.*

  ISO/IEC 9646-1:1994, *Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts.*

- CCITT Recommendation X.291 (1992), *OSI conformance testing methodology and framework for protocol Recommendations for CCITT applications - Abstract test suite specification.*

  ISO/IEC 9646-2:1994, *Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 2: Abstract test suite specification.*

- ITU-T Recommendation X.296[1)], *OSI conformance testing methodology and framework for protocol Recommendations for ITU-T applications - Implementation conformance statements.*

  ISO/IEC 9646-7:1995, *Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 7: Implementation conformance statements.*

- CCITT Recommendation X.700 (1992), *Management Framework Definition for Open Systems Interconnection for CCITT applications.*

  ISO/IEC 7498-4:1989, *Information processing systems - Open Systems Interconnection - Basic Reference Model - Part 4: Management framework.*

- CCITT Recommendation X.710 (1991), *Common management information service definition for CCITT applications.*

  ISO/IEC 9595:1991, *Information technology - Open Systems Interconnection - Common management information service definition.*

1) Currently at the stage of Draft Recommendation.

Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS Not for Resale

– CCITT Recommendation X.711 (1991), *Common management information protocol specification for CCITT applications.*

ISO/IEC 9596-1:1991, *Information technology - Open Systems Interconnection - Common management information protocol - Part 1: Specification.*

2.3 Additional references

– ISO 8326/Add.2:[2)], *Information processing systems - Open Systems Interconnection - Basic connection oriented session service definition - Addendum 2: Unlimited user data.*

– ISO 8327/Add.2:[2)], *Information processing systems - Open Systems Interconnection - Basic connection oriented session protocol specification - Addendum 2: Unlimited user data.*

– ISO/IEC 8327-2:[3)], *Information technology - Open Systems Interconnection - Basic connection oriented session protocol specification - Part 2: Protocol Implementation Conformance Statement (PICS) proforma.*

– ISO/IEC 8650-2:1995, *Information technology - Open Systems Interconnection - Protocol specification for the Association Control Service Element: Protocol Implementation Conformance Statement (PICS) proforma.*

– ISO/IEC 8823-2:1995, *Information technology - Open Systems Interconnection - Connection-oriented presentation protocol: Protocol Implementation Conformance Statement (PICS) proforma.*

– ISO/IEC 9545:1994, *Information technology - Open Systems Interconnection - Application Layer Structure.*

– ISO/IEC TR 10000-1:1990[4)], *Information technology - Framework and taxonomy of International Standardized Profiles - Part 1: Framework.*

– ISO/IEC TR 10000-2:1994[4)], *Information technology - Framework and taxonomy of International Standardized Profiles - Part 2: Principles and Taxonomy for OSI Profiles.*

– ISO/IEC ISP 11183-1:1992, *Information technology - International Standardized Profiles AOM1n OSI Management - Management communications - Part 1: Specification of ACSE, presentation and session protocols for the use by ROSE and CMISE.*

– ISO/IEC ISP 11183-2:1992, *Information technology - International Standardized Profiles AOM1n OSI Management - Management communications - Part 2: CMISE/ROSE for AOM12 – Enhanced Management Communications.*

– ISO/IEC ISP 11183-3:1992, *Information technology - International Standardized Profiles AOM1n OSI Management - Management communications - Part 3: CMISE/ROSE for AOM11 – Basic Management Communications.*

– ISO/IEC ISP 12059-0:1995, *Information technology - International Standardized Profiles - OSI Management - Common information for management functions - Part 0: Common definitions for management function profiles.*

– ISO/IEC ISP 12059-4:1995, *Information technology - International Standardized Profiles - OSI Management - Common information for management functions - Part 4: Alarm reporting.*

– ISO/IEC ISP 12060-1:1995, *Information technology - International Standardized Profiles - OSI Management - Management Functions - Part 1: AOM211 - General management capabilities.*

– ISO/IEC ISP 12060-2:1995, *Information technology - International Standardized Profiles - OSI Management - Management Functions - Part 2: AOM212 - Alarm reporting and state management capabilities.*

– ISO/IEC ISP 12060-5:1995, *Information technology - International Standardized Profiles - OSI Management - Management Functions - Part 5: AOM231 - General log control.*

---

2) To be incorporated in a new edition of the base standard.

3) To be published.

4) Under revision.

Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS Not for Resale

3 Definitions

The terms used in this part of ISO/IEC ISP 12060 are defined in the referenced base standards.

4 Abbreviations

The abbreviations used in this part of ISO/IEC ISP 12060 are specified in ISO/IEC ISP 12059-0.

5 Conventions

The common conventions used in this part of ISO/IEC ISP 12060 are specified in ISO/IEC ISP 12059-0.

The following conditions are specified in the referenced base standard and used in this part of ISO/IEC ISP 12060:

4A/cn See CCITT Rec. X.733 | ISO/IEC 10164-4, Annex A, condition cn.

4B/cn See CCITT Rec. X.733 | ISO/IEC 10164-4, Annex B, condition cn.

6 Conformance requirements

This part of ISO/IEC ISP 12060 states the requirements for interworking between two management systems with alarm reporting capabilities. A claim of conformance to AOM213 is a claim that all the mandatory requirements in the relevant base standards are satisfied, and that the requirements in the following clauses, and in Annex A are satisfied.

AOM213 requires conformance to the following systems management standard:

CCITT Rec. X.733 | ISO/IEC 10164-4: Alarm reporting function

The detailed requirements for the support of the above base standard are specified in ISO/IEC ISP 12059 part 4.

The implementation shall support the requirements specified in ISO/IEC ISP 11183-1 for the ACSE, Presentation and Session layers, and part of ISO/IEC ISP 11183-3 for CMIP and ROSE, as specified by this profile.

The common requirements for this profile are specified in ISO/IEC ISP 12059-0. The specific requirements are specified in Annex A.

Implementations conforming to AOM213 shall implement all the mandatory features. The supplier of an implementation claiming conformance to AOM213 shall make available a statement of support or non-support of each optional function, feature or parameter identified in this part of ISO/IEC ISP 12060.

AOM213 requires support of the Alarm reporting function as specified in CCITT Rec. X.733 | ISO/IEC 10164-4. As a result this requires support for the protocol elements needed to provide the alarm reporting service.

AOM213 requires support of the CMISE kernel functional unit.

An implementation conforming to AOM213 in the agent role shall support a mechanism to ensure that the managed system can send notifications to a managing system.

To assist in migration and compatibility, it is recommended that management systems be capable of tolerating the arrival of unexpected information, such as notifications and attribute values.

6.1 MAPDU support

An implementation conforming to AOM213 shall support the following MAPDUs for each of the management roles supported. The detailed requirements for each of the MAPDUs are specified in Annex A.

Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS Not for Resale

6.1.1 Manager role requirements

An implementation supporting the manager role shall be able to receive the following set of MAPDUs and generate, when required, a response.

communicationsAlarm
environmentalAlarm
equipmentAlarm
processingErrorAlarm
qualityofServiceAlarm

6.1.2 Agent role requirements

An implementation supporting the agent role shall be able to send the following set of MAPDUs and receive the corresponding response.

communicationsAlarm
environmentalAlarm
equipmentAlarm
processingErrorAlarm
qualityofServiceAlarm

6.2 Systems management functional unit

The SMASE functional unit for alarm reporting capability is defined in CCITT Rec. X.733 | ISO/IEC 10164-4 and the requirements for support are defined in Table A.4. The support of these functional units requires the implementation of all the capabilities included in the functional unit. The negotiation of functional units is optional. An implementation is required to support at least one role.

--`,,```,,,,````-`-`,,`,,`,`,,`---

Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS Not for Resale

Annex A

(normative)

ISPICS Requirements List (IPRL) for AOM213

The following clarifies, where necessary, the column headings used in the IPRL in this annex:

Index:	The row index of this item in the referenced ICS proforma.
Constraints and Values:	Base standard constraints or any additional constraints defined in the common profile or this profile for this item.
Base Std.:	The status value of the item as defined in the base standard.
Common Profile:	Requirements as defined for this item in the referenced common profile.
AOM213 Profile:	AOM213 profile requirements defined for this item.

The notation used in this annex is identified in clause 5. The parameter names are those which are specified in CCITT Recommendation X.733 | ISO/IEC 10164-4 and CCITT Recommendation X.721 | ISO/IEC 10165-2.

A.1 Management conformance summary

The following table identifies part of the information that the supplier of the implementation shall provide in the final management conformance summary. The supplier shall indicate claims of conformance to the following Recommendations | International Standards.

NOTE - In tables A.1, A.2 and A.3, the "Base Std." column and the "Profile" column are used to indicate whether the supplier of the implementation is required to complete the referenced tables or referenced items. Conformance requirements are as specified in the referenced tables or referenced items, and are not changed by the value in the MCS "Base Std." column and "Profile" column.

Table A.1 is based on Table A.2 of CCITT Recommendation X.733|ISO/IEC 10164-4 DAM 1.

Table A.1 - PICS support summary

Index	Identification of the document including the PICS proforma	Table numbers of PICS proforma	Description	Constraints and values	Base Std.	AOM213 Profile	Table numbers of PICS	Additional information
1	CCITT Rec.X.733 | ISO/IEC 10164-4	Annex B all tables	-	-	m	m		Specified in ISO/IEC ISP 12059-4
2	CCITT Rec.X.730 | ISO/IEC 10164-1	Annex E all tables	SM application context	-	m	m		Specified in ISO/IEC ISP 12059-0
3	CCITT Rec.X.712 | ISO/IEC 9596-2	Annex A all Tables	CMIP	-	o	m		Specified in ISO/IEC ISP 11183-3
4	ISO/IEC 8650-2	All tables	ACSE	-	o	m		Specified in ISO/IEC ISP 11183-1
5	ISO/IEC 8823-2	All tables	Presentation	-	o	m		Specified in ISO/IEC ISP 11183-1
6	ISO/IEC 8327-2	All tables	Session	-	o	m		Specified in ISO/IEC ISP 11183-1

Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS Not for Resale

Table A.2 is based on Table A.3 of CCITT Recommendation X.733|ISO/IEC 10164-4 DAM 1.

Table A.2 - MOCS support summary

Index	Identification of the document including the MOCS proforma	Table numbers of MOCS proforma	Description	Constraints and values	Base Std.	AOM213 Profile	Table numbers of MOCS	Additional information
1	CCITT Rec.X.733 | ISO/IEC 10164-4	Annex C all tables	alarmRecord	-	4A/c1	4A/c1		Specified in ISO/IEC ISP 12059-4

Table A.3 is based on Table A.4 of CCITT Recommendation X.733|ISO/IEC 10164-4 DAM 1.

Table A.3 - MRCS support summary

Index	Identification of the document including the MRCS proforma	Table numbers of MRCS proforma	Description	Constraints and values	Base Std.	AOM213 Profile	Table numbers of MRCS	Additional information
1	CCITT Rec.X.735 | ISO/IEC 10164-6	Annex D Item D.1/1	logRecord-Log name binding	-	4A/c1	4A/c1		Specified in ISO/IEC ISP 12060-5

A.2 Management capability support

An implementation conforming to AOM213 shall indicate which systems management functional units are supported. The functional unit requires the support of a set of MAPDUs that are carried using CMIP PDUs. The negotiation of functional units is optional.

Table A.4 is based on Table B.2 of CCITT Recommendation X.733 | ISO/IEC 10164-4 DAM 1.

Table A.4 - Management capability

Index	Functional unit name	Base Std.	AOM213 Profile	MAPDUs	CMIS service primitives	Additional information
1	alarm reporting	4B/c1	m	communicationsAlarm environmentalAlarm equipmentAlarm processingErrorAlarm qualityofServiceAlarm	M-EVENT-REPORT	

A.2.1 MAPDU support

A.2.1.1 Alarm reporting MAPDU support

The detailed information of the MAPDUs for which support is required is specified in ISO/IEC ISP 12059-4. However, AOM213 places the following restrictions on parameter support.

Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS
Not for Resale

Table A.5 is based on Table A.3 of ISO/IEC ISP 12059-4.

Table A.5 - Communications alarm MAPDU (Agent sending)

Index	Parameter name	Constraints and values	Common Profile	AOM213 Profile	Additional information
2	specificProblems	required for some objects	oo	mo	
4	backedUpStatus	required for some objects	oo	mo	
7.2.2	real		c:oc3	c:mc3	
7.3.1.1.2	real		c:oc3	c:mc3	
7.3.1.2.2	real		c:oc3	c:mc3	
7.3.2.1.2	real		c:oc3	c:mc3	
7.3.2.2.2	real		c:oc3	c:mc3	
10	stateChangeDefinition	required for some objects	oc24	mc24	
11	monitoredAttributes	required for some objects	oo	mo	
12	proposedRepairActions	required for some objects	oo	mo	
14	additionalInformation	required for some objects	oo	mo	

c24 is defined in ISO/IEC ISP 12059-4.

Table A.6 is based on Table A.5 of ISO/IEC ISP 12059-4.

Table A.6 - Quality of service alarm MAPDU (Agent sending)

Index	Parameter name	Constraints and values	Common Profile	AOM213 Profile	Additional information
2	specificProblems	required for some objects	oo	mo	
4	backedUpStatus	required for some objects	oo	mo	
7.2.2	real		c:oc3	c:mc3	
7.3.1.1.2	real		c:oc3	c:mc3	
7.3.1.2.2	real		c:oc3	c:mc3	
7.3.2.1.2	real		c:oc3	c:mc3	
7.3.2.2.2	real		c:oc3	c:mc3	
10	stateChangeDefinition	required for some objects	oc24	mc24	
11	monitoredAttributes	required for some objects	oo	mo	
12	proposedRepairActions	required for some objects	oo	mo	
14	additionalInformation	required for some objects	oo	mo	

c24 is defined in ISO/IEC ISP 12059-4.

Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS Not for Resale

Table A.7 is based on Table A.7 of ISO/IEC ISP 12059-4.

Table A.7 - Processing error alarm MAPDU (Agent sending)

Index	Parameter name	Constraints and values	Common Profile	AOM213 Profile	Additional information
2	specificProblems	required for some objects	oo	mo	
4	backedUpStatus	required for some objects	oo	mo	
7.2.2	real		c:oc3	c:mc3	
7.3.1.1.2	real		c:oc3	c:mc3	
7.3.1.2.2	real		c:oc3	c:mc3	
7.3.2.1.2	real		c:oc3	c:mc3	
7.3.2.2.2	real		c:oc3	c:mc3	
10	stateChangeDefinition	required for some objects	oc24	mc24	
11	monitoredAttributes	required for some objects	oo	mo	
12	proposedRepairActions	required for some objects	oo	mo	
14	additionalInformation	required for some objects	oo	mo	

c24 is defined in ISO/IEC ISP 12059-4.

Table A.8 is based on Table A.9 of ISO/IEC ISP 12059-4.

Table A.8 - Equipment alarm MAPDU (Agent sending)

Index	Parameter name	Constraints and values	Common Profile	AOM213 Profile	Additional information
2	specificProblems	required for some objects	oo	mo	
4	backedUpStatus	required for some objects	oo	mo	
7.2.2	real		c:oc3	c:mc3	
7.3.1.1.2	real		c:oc3	c:mc3	
7.3.1.2.2	real		c:oc3	c:mc3	
7.3.2.1.2	real		c:oc3	c:mc3	
7.3.2.2.2	real		c:oc3	c:mc3	
10	stateChangeDefinition	required for some objects	oc24	mc24	
11	monitoredAttributes	required for some objects	oo	mo	
12	proposedRepairActions	required for some objects	oo	mo	
14	additionalInformation	required for some objects	oo	mo	

c24 is defined in ISO/IEC ISP 12059-4.

Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS
Not for Resale

Table A.9 is based on Table A.11 of ISO/IEC ISP 12059-4.

Table A.9 - Environmental alarm MAPDU (Agent sending)

Index	Parameter name	Constraints and values	Common Profile	AOM213 Profile	Additional information
2	specificProblems	required for some objects	oo	mo	
4	backedUpStatus	required for some objects	oo	mo	
7.2.2	real		c:oc3	c:mc3	
7.3.1.1.2	real		c:oc3	c:mc3	
7.3.1.2.2	real		c:oc3	c:mc3	
7.3.2.1.2	real		c:oc3	c:mc3	
7.3.2.2.2	real		c:oc3	c:mc3	
10	stateChangeDefinition	required for some objects	oc24	mc24	
11	monitoredAttributes	required for some objects	oo	mo	
12	proposedRepairActions	required for some objects	oo	mo	
14	additionalInformation	required for some objects	oo	mo	

c24 is defined in ISO/IEC ISP 12059-4.

A.3 CMIP PDU requirements

An implementation conforming to AOM213 shall support the CMIP PDUs associated with the following CMIS services. The list of CMIP PDUs associated with each service is specified in ISO/IEC ISP 11183-3.

Table A.10 - CMIP PDU requirements

Index	CMIS Service Primitive	ISO/IEC ISP 11183-3 Table Reference		Changes from profile columns in ISO/IEC ISP 11183-3 tables
		Manager	Agent	
1	M-EVENT-REPORT	Table A.24	Table A.23	none

Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS Not for Resale

A.4 Managed object support

A.4.1 Introduction

AOM213 includes conditional support for alarm record managed object.

A.4.2 Event log record support

If an implementation supports any AOM23x profile, the implementation conforming to AOM213 shall support the following log record.

Table A.11 - Event log record support

Index	Event log record subclass name	Base Std.		AOM213 Profile		Reference
		objects corresponding to received notifications	objects corresponding to internal notifications	objects corresponding to received notifications	objects corresponding to internal notifications	
1	alarmRecord	4A/c1	4A/c1	4A/c1	4A/c1	ISO/IEC ISP 12059-4

Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS
Not for Resale

ICS 35.100.00

Descriptors: data processing, information interchange, network interconnection, open systems interconnection, data transmission, communication procedure, management, profiles.

Price based on 13 pages

Copyright International Organization for Standardization
Provided by IHS under license with ISO
No reproduction or networking permitted without license from IHS Not for Resale