

INTERNATIONAL STANDARD

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AMENDMENT 1
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Information technology — Open Systems Interconnection — Systems Management: State Management Function

AMENDMENT 1: Implementation conformance
statement proformas

*Technologies de l'information — Interconnexion de systèmes ouverts
(OSI) — Gestion-systèmes: Fonction de gestion d'états*

AMENDEMENT 1: Proformes ICS



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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.

Amendment 1 to International Standard ISO/IEC 10164-2 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 21, *Open systems interconnection, data management and open distributed processing*, in collaboration with ITU-T. The identical text is published as ITU-T Rec. X.731/Amd.1.

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Introduction

This amendment includes tables, which document the mandatory and optional management information specific to the State Management Function. This amendment will be used by Profile specifiers, for example, those developing International Standardized Profiles (ISPs), to specify an explicit subset of capability, which will afford interoperability between implementations. The tables also include a column for equipment vendors to state the capability of their products in terms of the Profiles or base specification. The table structures comply with the Guidelines for Implementation Conformance Statement Proformas specified in ITU-T Rec. X.724 | ISO/IEC 10165-6.

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INTERNATIONAL STANDARD

ITU-T RECOMMENDATION

INFORMATION TECHNOLOGY – OPEN SYSTEMS INTERCONNECTION –
SYSTEMS MANAGEMENT: STATE MANAGEMENT FUNCTIONAMENDMENT 1
(to Rec. X.731 | ISO/IEC 10164-2)

IMPLEMENTATION CONFORMANCE STATEMENT PROFORMAS

- 1) *Add the following footnote to the first list item in 2.1:*
 “1) As amended by ITU-T Rec. X.701/Cor.2 | ISO/IEC 10040/Cor.2”
- 2) *Add the following reference to 2.1:*
 “– ITU-T 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.*”
- 3) *Add the following references to 2.2:*
 - 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.296²⁾, *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.*

And then add the following footnote:

2) Presently at the stage of draft.
- 4) *Apply the following changes to 3.4:*
Add the following items to the list
 “Management Information Conformance Statement (MICS)”
 “Managed Object Conformance Statement (MOCS)”
 “MICS proforma”
 “MOCS proforma”.
Delete item c) and d), re-label the list and re-arrange the list in alphabetic order.
- 5) *Apply the following change to 3.7:*
 Replace “system conformance statement” with the following:
 - “a) PICS proforma;
 - b) protocol implementation conformance statement;
 - c) system conformance statement.”

- 6) *Renumber 3.8 as 3.9 and insert the following new subclause:*

“3.8 Implementation conformance statement proforma definitions

This Recommendation | International Standard makes use of the following terms defined in ITU-T Rec. X.724 | ISO/IEC 10165-6:

- a) Managed Relationship Conformance Statement (MRCS);
- b) Management Conformance Summary (MCS);
- c) MCS proforma;
- d) MRCS proforma.”

- 7) *Add the following abbreviations to clause 4:*

“ICS	Implementation Conformance Statement
MCS	Management Conformance Summary
MICS	Management Information Conformance Statement
MIDS	Management Information Definition Statement
MOCS	Managed Object Conformance Statement
MRCS	Managed Relationship Conformance Statement
PICS	Protocol Implementation Conformance Statement”

- 8) *Replace clause 13 with the following:*

“13 Conformance

Implementations claiming to conform to this Recommendation | International Standard shall comply with the conformance requirements as defined in the following subclauses.

13.1 Static conformance

The implementation shall conform to the requirements of this Recommendation | International Standard in the manager role, the agent role, or both roles. A claim of conformance to at least one role shall be made in Table A.1.

If a claim of conformance is made for support in the manager role, the implementation shall support at least the notification or one of the management operations specified in this Recommendation | International Standard. The conformance requirements in the manager role for those management operations and notification are specified in Table A.3 and further tables referenced by Annex A.

If a claim of conformance is made for support in the agent role, the implementation shall support at least one of the attributes, attribute group, notification identified in Table A.4. The conformance requirements in the agent role are specified in Annex A and further tables referenced by Annex A.

The implementation shall support the transfer syntax derived from the encoding rules specified in CCITT Rec. X.209 | ISO/IEC 8825 named {joint-iso-ccitt asn1(1) basicEncoding(1)} for the abstract data types referenced by the definitions for which support is claimed.

NOTE – Prior to the publication of this amendment, this Recommendation | International Standard identified general and dependent conformance classes. A claim of conformance similar to general conformance class can be made by stating support in the manager role, the agent role, or both roles, for object events functional unit in Table A.2. A claim of conformance similar to dependent conformance class can be made by stating support for at least one of the items in Tables A.3 or A.4.

13.2 Dynamic conformance

Implementations claiming to conform to this Recommendation | International Standard shall support the elements of procedure and definitions of semantics corresponding to the definitions for which support is claimed.

13.3 Management implementation conformance statement requirements

Any MCS proforma, MICS proforma, and MOCS proforma which conforms to this Recommendation | International Standard shall be technically identical to the proformas specified in Annexes A, B, and C preserving table numbering and the index numbers of items, and differing only in pagination and page headers.

The supplier of an implementation which is claimed to conform to this Recommendation | International Standard shall complete a copy of the management conformance summary (MCS) provided in Annex A as part of the conformance requirements together with any other ICS proformas referenced as applicable from that MCS. An ICS which conforms to this Recommendation | International Standard shall:

- describe an implementation which conforms to this Recommendation | International Standard;
- have been completed in accordance with the instructions for completion given in ITU-T Rec. X.724 | ISO/IEC 10165-6;
- include the information necessary to uniquely identify both the supplier and the implementation.

Claims of conformance to the management information defined in this Recommendation | International Standard in managed object classes defined elsewhere shall include the requirements of the MIDS proforma, as specified in Annex D, in the MOCS for the managed object class. “

9) *Apply the following change to 11.1.1.1:*

In the last sentence, replace “11.1.1.1.2” by “11.1.1.2”

10) *Apply the following change to 11.1.2.1:*

In the last sentence, replace “11.1.1.2.2” by “11.1.2.2”

11) *Apply the following changes to Figure 4:*

Move the incoming arrow head from the left line at the top of the “Busy” block within the “ENABLED” and “UNLOCKED” blocks and place it on the centre line (i.e. the arrow will then show transition from “Idle” to “Busy”).

Move the incoming arrow head from the right line at the top of the “Active” block within the “ENABLED” and “SHUTTING DOWN” blocks and place it on the left line.

12) *Add the following annexes:*

Annex A

MCS proforma³⁾

(This annex forms an integral part of this Recommendation | International Standard)

A.1 Introduction

A.1.1 Purpose and structure

The Management Conformance Summary (MCS) is a statement by a supplier that identifies an implementation and provides information on whether the implementation claims conformance to any of the listed set of documents that specify conformance requirements to OSI management.

The MCS proforma is a document, in the form of a questionnaire that when completed by the supplier of an implementation becomes the MCS.

A.1.2 Instructions for completing the MCS proforma to produce an MCS

The supplier of the implementation shall enter an explicit statement in each of the boxes provided. Specific instruction is provided in the text which precedes each table.

A.1.3 Symbols, abbreviations and terms

For all annexes of this Recommendation | International Standard, the following common notations, defined in CCITT Rec. X.291 | ISO/IEC 9646-2 and ITU-T Rec. X.296 | ISO/IEC 9646-7 are used for the Status column:

- m Mandatory
- o Optional
- c Conditional
- x Prohibited
- Not applicable or out of scope

NOTES

1 'c', 'm', and 'o' are prefixed by a 'c:' when nested under a conditional or optional item of the same table;

2 'o' may be suffixed by '.N' (where N is a unique number) for selectable options among a set of status values. Support of at least one of the choices (from the items with the same values of N) is required.

For all annexes of this Recommendation | International Standard, the following common notations, defined in CCITT Rec. X.291 | ISO/IEC 9646-2 and ITU-T Rec. X.296 | ISO/IEC 9646-7 are used for the Support column:

- Y Implemented
- N Not implemented
- No answer required
- Ig The item is ignored (i.e. processed syntactically but not semantically)

A.1.4 Table format

Some of the tables in this Recommendation | International Standard have been split because the information is too wide to fit on the page. Where this occurs, the index number of the first block of columns are the index numbers of the corresponding rows of the remaining blocks of columns. A complete table reconstructed from the constituent parts should have the following layout:

Index	First block of columns	Second block of columns	Etc.
-------	------------------------	-------------------------	------

³⁾ Users of this Recommendation | International Standard may freely reproduce the MCS proforma in this annex so that it can be used for its intended purpose, and may further publish the completed MCS. Instructions for MCS proforma are specified in ITU-T Rec. X.724 | ISO/IEC 10165-6.

In this Recommendation | International Standard the constituent parts of the table appear consecutively, starting with the first block of columns.

When a table with sub-rows is too wide to fit on a page, the continuation tables(s) have been constructed with index numbers identical to the index numbers in the corresponding rows of the first table, and with sub-index numbers corresponding to the sub-rows within each indexed row. For example, if Table X.1 has 2 rows and the continuation of Table X.1 has 2 sub-rows for each row, the tables are presented as follows:

Table X.1 – Title

Index	A	B	C	D	Support		G
					E	F	
1	a	b	–				
2	a	b	–				

Table X.1 (concluded) – Title

Index	Sub-index	H	I	J	K	L
1	1.1	h	i	j		
	1.2	h	i	j		
2	2.1	h	i	j		
	2.2	h	i	j		

A complete table reconstructed from the constituent parts should have the following layout:

Index	A	B	C	D	Support		G	Sub-index	H	I	J	K	L
					E	F							
1	a	b	–					1.1	h	i	j		
								1.2	h	i	j		
2	a	b	–					2.1	h	i	j		
								2.2	h	i	j		

References made to cells within tables shall be interpreted as references within reconstructed table. In the example, above, the reference X.1/1d corresponds to the blank cell in the column G for row with Index 1, and X.1/1.2b corresponds to the blank cell in column L for row with Sub-index 1.2

A.2 Identification of the implementation

A.2.1 Date of statement

The supplier of the implementation shall enter the date of this statement in the box below. Use the format DD-MM-YYYY.

Date of statement