



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

Amendment 1
X.730

(04/95)

**DATA NETWORKS AND OPEN SYSTEM
COMMUNICATIONS
OSI MANAGEMENT**

**INFORMATION TECHNOLOGY –
OPEN SYSTEMS INTERCONNECTION –
SYSTEMS MANAGEMENT: OBJECT
MANAGEMENT FUNCTION – AMENDMENT 1:**

**IMPLEMENTATION CONFORMANCE
STATEMENT PROFORMAS**

**Amendment 1 to
ITU-T Recommendation X.730**

(Previously “CCITT Recommendations”)

FOREWORD

ITU (International Telecommunication Union) is the United Nations Specialized Agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of the ITU. Some 179 member countries, 84 telecom operating entities, 145 scientific and industrial organizations and 38 international organizations participate in ITU-T which is the body which sets world telecommunications standards (Recommendations).

The approval of Recommendations by the Members of ITU-T is covered by the procedure laid down in WTSC Resolution No. 1 (Helsinki, 1993). In addition, the World Telecommunication Standardization Conference (WTSC), which meets every four years, approves Recommendations submitted to it and establishes the study programme for the following period.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC. The text of ITU-T Recommendation X.730, Amendment 1, was approved on 10th of April 1995. The identical text is also published as ISO/IEC International Standard 10164-1.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized private operating agency.

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ITU-T X-SERIES RECOMMENDATIONS

DATA NETWORKS AND OPEN SYSTEM COMMUNICATIONS

(February 1994)

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Summary

This amendment includes tables, which document the mandatory and optional management information specific to the Object Management Function. This amendment will be used by Profile specifiers, for example those developing International Standardized Profiles (ISPs), to specify and explicit subset of capability, which will afford interoperability between implementatations. 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: OBJECT MANAGEMENT FUNCTIONAMENDMENT 1
(to Rec. X.730 | ISO/IEC 10164-1)

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 9646-7²⁾, *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) *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 by 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 one of the notifications or at least one of the management operations specified in this Recommendation | International Standard. The conformance requirements in the manager role for those management operations and notifications, are identified 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 notifications specified in this Recommendation | International Standard. The conformance requirements in the agent role are identified in Table A.4 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, MOCS proforma, and PICS proforma which conforms to this Recommendation | International Standard shall be technically identical to the proformas specified in Annexes A, B, C, E 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 Annexe D, in the MOCS for the managed object class.”

9) *Apply the following change to 11.1.1.2.1:*

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

10) *Apply the following change to 11.1.8.2.1:*

In the last sentence replace “11.1.6.2.2” by “11.1.8.2.2”

11) 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.
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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 completing the MCS proforma are specified in ITU-T Rec.X.724 | ISO/IEC 10165-6.