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**Corrigendum 1
X.740**

(04/95)

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

**INFORMATION TECHNOLOGY –
OPEN SYSTEMS INTERCONNECTION –
SYSTEMS MANAGEMENT: SECURITY AUDIT
TRAIL FUNCTION**

TECHNICAL CORRIGENDUM 1

**Corrigendum 1 to
ITU-T Recommendation X.740**

(Previously "CCITT Recommendation")

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.740, Corrigendum 1, was approved on 10th of April 1995. The identical text is also published as ISO/IEC International Standard 10164-8.

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 technical corrigendum corrects the conformance statement in clause 13 and the implementation Conformance Statement proformas (ICS). These changes will ensure this Recommendation aligns with the Amendment 1 applied to each of Recommendations X.730 to X.736 inclusive for conformance.

**INFORMATION TECHNOLOGY – OPEN SYSTEMS INTERCONNECTION –
SYSTEMS MANAGEMENT: SECURITY AUDIT TRAIL FUNCTION**

**TECHNICAL CORRIGENDUM 1
(to Rec. X.740 | ISO/IEC 10164-8)**

- 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) *Apply the following change to 2.1:*
Remove footnote 1 and replace the fourth list item with the following:
“– 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 reference to 2.2:*
“– ITU-T Recommendation X.296³⁾, *OSI conformance testing methodology and framework for protocol Recommendations for ITU-T applications – Implementation conformance statements.*
ISO/IEC 9646-7³⁾, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 7: Implementation Conformance Statements.*
And then add the following footnote:
³⁾ Presently at the stage of draft.
- 4) *Apply the following changes to 3.4:*
Replace “dependent conformance” with “managed object conformance statement (MOCS)”.
Replace “general conformance” with “management information conformance statement (MICS)”.
Relabel items f) and g) as h) and i) and insert the following new items:
“f) MICS proforma;
g) MOCS proforma;”
- 5) *Insert the following new subclause:*

“3.9 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) Management Information Definition Statement (MIDS) proforma;
- d) MCS proforma;
- e) MRCS proforma.”
- 6) *Add the following abbreviation to clause 4:*
“ICS Implementation Conformance Statement
MICS Management Information Conformance Statement
MRCS Managed Relationship Conformance Statement”
- 7) *Replace clause 13 with the following:*

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 B.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 B.3 and further tables referenced by Annex B.

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 B.4 and further tables referenced by Annex B.

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 the security audit trail reporting functional unit in Table B.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 B.3 or B.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 B, C and D 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 B 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 in the MOCS for the managed object class.

8) Apply the following change to A.5:

Replace the production for “SecurityAuditInfo” with the following:

<pre>"SecurityAuditInfo ::= SEQUENCE { serviceReportCause notificationIdentifier correlatedNotifications additionalText additionalInformation }</pre>	<pre>ServiceReportCause OPTIONAL, NotificationIdentifier OPTIONAL, [1] IMPLICIT CorrelatedNotifications OPTIONAL, AdditionalText OPTIONAL, [2] IMPLICIT AdditionalInformation OPTIONAL }"</pre>
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9) Replace Annexes B, C, D and E with the following:

MCS proforma⁵⁾

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

B.1 Introduction**B.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.

B.1.2 Instructions for completing the MCS proforma to produce a 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.

B.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 "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 value 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).

B.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.
-------	------------------------	-------------------------	------

⁵⁾ 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 the MCS proforma are specified in ITU-T Rec. X.724 | ISO/IEC 10165-6.

first block of columns.

When a table with sub-rows is too wide to fit on a page, the continuation table(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 (continued) – 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 tables. In the example, above, the reference X.1/1d corresponds to the blank cell in 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.

B.2 Identification of the implementation

B.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

The supplier of the implementation shall enter information necessary to uniquely identify the implementation and the system(s) in which it may reside, in the box below.

B.2.3 Contact

The supplier of the implementation shall provide information on whom to contact if there are any queries concerning the content of the MCS or any referenced conformance statement, in the box below.

B.3 Identification of the Recommendations | International Standards in which the management information is defined

The supplier of the implementation shall enter the title, reference number and date of the publication of the Recommendations | International Standards which specify the management information to which conformance is claimed, in the box below.

Recommendations | International Standards to which conformance is claimed

B.3.1 Technical corrigenda implemented

The supplier of the implementation shall enter the reference numbers of implemented technical corrigenda which modify the identified Recommendations | International Standards, in the box below.

B.3.2 Amendments implemented

The supplier of the implementation shall state the titles and reference numbers of implemented amendments to the identified Recommendations | International Standards, in the box below.

The supplier of the implementation shall state the capabilities and features supported and provide a summary of conformance claims to Recommendations | International Standards using the tables in this annex.

The supplier of the implementation shall specify the roles that are supported, in Table B.1.

Table B.1 – Roles

Index	Roles supported	Status	Support	Additional information
1	Manager role support	o.1		
2	Agent role support	o.1		

The supplier of the implementation shall specify support for the systems management functional unit, in Table B.2.

Table B.2 – Systems management functional unit

Index	Systems management functional unit name	Manager		Agent		Additional information
		Status	Support	Status	Support	
1	security audit trail reporting functional unit	c1		c2		
c1: if B.1/1a then o else –. c2: if B.1/2a then o else –.						

The supplier of the implementation shall specify support for management information in the manager role, in Table B.3.

Table B.3 – Manager role minimum conformance requirement

Index	Item	Status	Support	Additional information
1	Service report notification	c3		
2	Usage report notification	c3		
3	Operations on managed objects	c4		
c3: if B.2/1a then m else (if B.1/1a then o.2 else –). c4: if B.2/1a then m else (if B.1/1a then o else –). NOTE – Manager role minimum conformance requires support for at least one of the items identified in this table. Support for the functional unit identified in Table B.2 mandates support for some of those items. Conditions c3 and c4 express both of these requirements.				

Table B.4 – Agent role minimum conformance requirement

Index	Item	Status	Support	Table reference	Additional information
1	Service report notification	c5			
2	Usage report notification	c5			
3	Security audit trail record managed object	c6		–	
<p>c5: if B.2/1b then m else (if B.1/2a then o.3 else –).</p> <p>c6: if B.1/2a and B.5/1a then m else –.</p> <p>NOTES</p> <p>1 Condition c6 makes it mandatory, if logging is supported, to support the event log records associated with the notifications supported.</p> <p>2 The Table reference column in this table is the notification reference of the MOCS supplied by the supplier of the managed object which claims to import the notification from this Recommendation International Standard.</p>					

Table B.5 – Logging of event records

Index		Status	Support	Additional information
1	Does the implementation support logging of event records in agent role?	c7		
c7: if B.1/2a then o else –.				

NOTE 1 – Conformance to this Recommendation | International Standard does not require conformance to CCITT Rec. X.735 | ISO/IEC 10164-6.

The supplier of the implementation shall provide information on claims of conformance to any of the Recommendations | International Standards summarized in the following tables. For each Recommendation | International Standard that the supplier of the implementation claims conformance to, the corresponding conformance statement(s) shall be completed, or referenced by, the MCS. The supplier of the implementation shall complete the Support, Table numbers and Additional information columns.

In Tables B.6 to B.9, the Status column is 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 of the MCS Status column. Similarly, the Support column is used by the supplier of the implementation to indicate completion of the referenced tables or referenced items.

Table B.6 – PICS support summary

Index	Identification of the document that includes the PICS proforma	Table numbers of PICS proforma	Description	Constraints and values	Status	Support	Table numbers of PICS	Additional information
1	CCITT Rec. X.730 ISO/IEC 10164-1	Annex E all tables	SM application context	OBJECT IDENTIFIER	m			

NOTE 2 – Conformance to the MAPDUs defined in this Recommendation | International Standard can be claimed by completing the corresponding tables in the MICS and MOCS annexes of the referenced Recommendations | International Standards

Index	Identification of the document that includes the MOCS proforma	Table numbers of MOCS proforma	Description	Constraints and values	Status	Support	Table numbers of MOCS	Additional information
1	CCITT Rec. X.740 ISO/IEC 10164-8	Annex D all tables	securityAuditTrail Record	–	c8			
c8: if B.4/3a then m else –.								

Table B.8 – MRCS support summary

Index	Identification of the document that includes the MRCS proforma	Table numbers of MRCS proforma	Description	Constraints and values	Status	Support	Table numbers of MRCS	Additional information
1	CCITT Rec. X.735 ISO/IEC 10164-6	Item D.1/1	logRecord-log name binding	–	c9			
c9: if B.5/1a then o else –.								

Table B.9 – MICS support summary

Index	Identification of the document that includes the MICS proforma	Table numbers of MICS proforma	Description	Constraints and values	Status	Support	Table numbers of MICS	Additional information
1	CCITT Rec. X.740 ISO/IEC 10164-8	Table C.1	notifications	–	c10			
2	CCITT Rec. X.740 ISO/IEC 10164-8	Tables C.2 and C.3	management operations	–	c11			
c10: if B.3/1a or B.3/2a then m else –. c11: if B.3/3a then m else –.								

MICS proforma⁶⁾

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

C.1 Introduction

The purpose of this MICS proforma is to provide a mechanism for a supplier of an implementation which claims conformance, in the manager role, to management information specified in this Recommendation | International Standard, to provide conformance information in a standard form.

C.2 Instructions for completing the MICS proforma to produce a MICS

The MICS proforma contained in this annex is comprised of information in tabular form, in accordance with ITU-T Rec. X.724 | ISO/IEC 10165-6. In addition to the general guidance given in ITU-T Rec. X.724 | ISO/IEC 10165-6, the Additional information column shall be used to identify the object classes for which the management operations are supported. The supplier of the implementation shall state which items are supported in the tables below and if necessary, provide additional information.

C.3 Symbols, abbreviations and terms

The following abbreviations are used throughout the MICS proforma:

dmi-att joint-iso-ccitt ms(9) smi(3) part2(2) attribute(7)
 satf-att joint-iso-ccitt ms(9) function(2) part8(8) attribute(7)
 satf-not joint-iso-ccitt ms(9) function(2) part8(8) notification(10)

The notations used for the Status and Support columns are specified in B.1.3.

C.4 Statement of conformance to the management information**C.4.1 Notifications**

The specifier of a manager role implementation that claims to support the notifications specified in this Recommendation | International Standard shall import a copy of Table C.1 and complete it.

Table C.1 – Notification support

Index	Notification type template label	Value of object identifier for the notification type	Constraints and values	Status	Support		Additional information
					Confirmed	Non-confirmed	
1	serviceReport	{satf-not 1}	–	c1			
2	usageReport	{satf-not 2}	–	c2			
c1: if B.3/1a then m else –. c2: if B.3/2a then m else –.							

(continued)

⁶⁾ Users of this Recommendation | International Standard may freely reproduce the MICS proforma in this annex so that it can be used for its intended purpose, and may further publish the completed MICS.