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**AMENDMENT 1**  
1998-12-15

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**Information technology — Open Systems  
Interconnection — Systems Management:  
Metric objects and attributes**

**AMENDMENT 1: Implementation conformance  
statement proformas**

*Technologies de l'information — Interconnexion de systèmes ouverts  
(OSI) — Gestion des systèmes: Objets et attributs métriques*

*AMENDEMENT 1: Formulaires de déclaration de conformité  
d'implémentations*



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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 ISO/IEC 10164-11:1994 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, in collaboration with ITU-T. The identical text is published as ITU-T Rec. X.739/Amd.1.

## INTERNATIONAL STANDARD

## ITU-T RECOMMENDATION

INFORMATION TECHNOLOGY – OPEN SYSTEMS INTERCONNECTION –  
SYSTEMS MANAGEMENT: METRIC OBJECTS AND ATTRIBUTES

## AMENDMENT 1

## Implementation conformance statement proformas

## 1) Subclause 2.1

Add the following reference by numerical order:

- ITU-T Recommendation X.724 (1996) | ISO/IEC 10165-6:1997, *Information technology – Open Systems Interconnection – Structure of management information: Requirements and guidelines for implementation conformance statement proformas associated with OSI management.*
- CCITT Recommendation X.735 (1992) | ISO/IEC 10164-6:1993, *Information technology – Open Systems Interconnection – Systems management: Log control function.*
- ITU-T Recommendation X.738 (1993) | ISO/IEC 10164-13:1995, *Information technology – Open Systems Interconnection – Systems management: Summarization function.*

## 2) Subclause 2.2

Add the following reference by numerical order:

- 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 (1995), *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.*

## 3) Subclause 3.7

Add the following before the existing 3.7 and renumber the rest of the subclause:

### 3.7 OSI Conformance testing definitions

This Recommendation | International Standard makes use of the following terms defined in ITU-T Rec. X.290 | ISO/IEC 9646-1:

- a) PICS proform;
- b) protocol implementation conformance statement;
- c) system conformance statement.

## 4) Clause 4

*Add the following abbreviations by alphabetical order:*

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

## 5) Clause 13

*Replace this clause 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 E.1.

If a claim of conformance is made for support in the manager role, the implementation shall support at least one management operation or notification of the managed objects specified by this Recommendation | International Standard. The conformance requirements in the manager role for those management operations and notifications are identified in Table E.2 and further tables referenced by Annex E.

If a claim of conformance is made for support in the agent role, the implementation shall support one or more instances of the managed object classes identified in Table E.3 and further tables referenced by Annex E.

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

### 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 MRCS proforma which conforms to this Recommendation I International Standard shall be technically identical to the proformas specified in Annexes E, F, G, H 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 I International Standard shall complete a copy of the Management Conformance Summary (MCS) provided in Annex E 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 I International Standard shall:

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

## 6) New Annexes E to N

Add the following annexes:

### Annex E<sup>1)</sup>

#### MCS proforma

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

#### E.1 Introduction

##### E.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.

##### E.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.

##### E.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.

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

NOTE 2 – 'o' may be suffixed by '.N' (where N is a unique number) for mutually exclusive or 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).

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<sup>1)</sup> Copyright release for MCS proforma

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.

#### E.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. |
|-------|------------------------|-------------------------|------|
|-------|------------------------|-------------------------|------|

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

When a table with subrows 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 subindex numbers corresponding to the subrows within each indexed row. For example, if Table X.1 has 2 rows and the continuation of Table X.1 has 2 subrows for each row, the tables are presented as follows:

**Table X.1 – Title**

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

**Table X.1 – Title (continued)**

| Index | Subindex | 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:

|       |   |   |   |   | Support |   |   |          |   |   |   |   |   |
|-------|---|---|---|---|---------|---|---|----------|---|---|---|---|---|
| Index | A | B | C | D | E       | F | G | Subindex | H | I | J | K | L |
| 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 with 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 Subindex 1.2.

## **E.2 Identification of the implementation**

### **E.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

### **E.2.2 Identification of the implementation**

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.

### **E.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, in the box below.

## **E.3 Identification of the Recommendation | International Standard 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 Recommendation | International Standard which specifies the management information to which conformance is claimed, in the box below.

Recommendation | International Standard to which conformance is claimed

### **E.3.1 Technical corrigenda implemented**

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

### E.3.2 Amendments implemented

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

|  |
|--|
|  |
|--|

### E.4 Management conformance summary

The supplier of implementation shall state the capabilities and features supported and provide 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 E.1.

**Table E.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 management information in the manager role, in Table E.2.

**Table E.2 – Manager role minimum conformance requirement**

| Index                          | Item                                                                          | Status | Support | Additional information |
|--------------------------------|-------------------------------------------------------------------------------|--------|---------|------------------------|
| 1                              | Operations on managed objects                                                 | c1     |         |                        |
| 2                              | Object creation notification from at least one metric managed object          | c1     |         |                        |
| 3                              | Object deletion notification from at least one metric managed object          | c1     |         |                        |
| 4                              | Attribute value change notification from at least one metric managed object   | c1     |         |                        |
| 5                              | State change notification from at least one metric managed object             | c1     |         |                        |
| 6                              | Quality of service alarm notification from at least one metric managed object | c1     |         |                        |
| c1: if E.1/1a then o.2 else –. |                                                                               |        |         |                        |

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

**Table E.3 – Agent role minimum conformance requirement**

| Index                          | Item                                           | Status | Support | Additional information |
|--------------------------------|------------------------------------------------|--------|---------|------------------------|
| 1                              | Algorithm indicating mean monitor object class | c2     |         |                        |
| 2                              | Mean and minmax monitor object class           | c2     |         |                        |
| 3                              | Mean and percentile monitor object class       | c2     |         |                        |
| 4                              | Mean and variance monitor object class         | c2     |         |                        |
| 5                              | Mean monitor object class                      | c2     |         |                        |
| 6                              | Monitor metric object class                    | c2     |         |                        |
| 7                              | Moving average mean monitor object class       | c2     |         |                        |
| c2: if E.1/2a then o.3 else –. |                                                |        |         |                        |

**Table E.4 – Logging of event records**

| Index                          | Item                                                                    | Status | Support | Additional information |
|--------------------------------|-------------------------------------------------------------------------|--------|---------|------------------------|
| 1                              | Does the implementation support logging of event records in agent role? | c3     |         |                        |
| c3: if E.1/2a then o.3 else –. |                                                                         |        |         |                        |

NOTE – 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 Recommendation | International Standards summarized in the Tables E.5 to E.8. 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 E.6 to E.8, 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 E.5 – 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 |                        | o      |         |                       |                        |

**Table E.6 – MOCS support summary**

| 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.733   ISO/IEC 10164-4                             | Annex C all tables             | alarmRecord                                                      | –                      | c4     |         |                       |                        |
| 2     | CCITT Rec. X.730   ISO/IEC 10164-1                             | Annex C all tables             | objectCreation, objectDeletion and attribute valueChange records | –                      | c4     |         |                       |                        |
| 3     | CCITT Rec. X.731   ISO/IEC 10164-2                             | Annex C all tables             | stateChange Record                                               | –                      | c4     |         |                       |                        |
| 4     | CCITT Rec. X.739   ISO/IEC 10164-11                            | Annex G                        | meanAndVarianceMonitor                                           | –                      | c5     |         |                       |                        |
| 5     | CCITT Rec. X.739   ISO/IEC 10164-11                            | Annex H                        | meanAndPercentileMonitor                                         | –                      | c7     |         |                       |                        |
| 6     | CCITT Rec. X.739   ISO/IEC 10164-11                            | Annex I                        | meanAndMinMaxMonitor                                             | –                      | c6     |         |                       |                        |
| 7     | CCITT Rec. X.739   ISO/IEC 10164-11                            | Annex J                        | movingAverageMean Monitor                                        | –                      | c11    |         |                       |                        |
| 8     | CCITT Rec. X.739   ISO/IEC 10164-11                            | Annex K                        | algorithmIndicatingMeanMonitor                                   | –                      | c8     |         |                       |                        |

Table E.6 (concluded)

| 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 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|--------------------------------|---------------|------------------------|--------|---------|-----------------------|------------------------|
| 9                                                                                                                                                                                                                                                                                                                                       | CCITT Rec. X.739   ISO/IEC 10164-11                            | Annex L                        | meanMonitor   | –                      | c9     |         |                       |                        |
| 10                                                                                                                                                                                                                                                                                                                                      | CCITT Rec. X.739   ISO/IEC 10164-11                            | Annex M                        | monitorMetric | –                      | c10    |         |                       |                        |
| c4: if (E.3/1a or E.3/2a or E.3/3a or E.3/4a or E.3/5a or E.3/6a or E.3/7a) and E.4/1a then m else –.<br>c5: if E.3/4a then m else –.<br>c6: if E.3/2a then m else –.<br>c7: if E.3/3a then m else –.<br>c8: if E.3/1a then m else –.<br>c9: if E.3/5a then m else –.<br>c10: if E.3/6a then m else –.<br>c11: if E.3/7a then m else –. |                                                                |                                |               |                        |        |         |                       |                        |

Table E.7 – 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                                                                                         | ITU-T Rec. X.739   ISO/IEC 10164-11                            | Annex N all tables             | scanner-system                    | –                      | c12    |         |                       |                        |
| 1                                                                                         | ITU-T Rec. X.738   ISO/IEC 10164-13                            | Annex O all tables             | conflictingPackagesScanner-system | –                      | c12    |         |                       |                        |
| 1                                                                                         | CCITT Rec. X.735   ISO/IEC 10164-6                             | Annex D Item D.1/1             | logRecord-log                     | –                      | c12    |         |                       |                        |
| c12: if E.3/1a or E.3/2a or E.3/3a or E.3/4a or E.3/5a or E.3/6a or E.3/7a then o else –. |                                                                |                                |                                   |                        |        |         |                       |                        |

Table E.8 – 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.739   ISO/IEC 10164-11                            | Tables F.1 and F.2             | management operations                                                 | –                      | c13    |         |                       |                        |
| 2                                                                                                                                                    | CCITT Rec. X.730   ISO/IEC 10164-1                             | Table B.1                      | objectCreation, objectDeletion and attributeValueChange notifications | –                      | c14    |         |                       |                        |
| 3                                                                                                                                                    | CCITT Rec. X.731   ISO/IEC 10164-2                             | Table B.1                      | stateChange notification                                              | –                      | c15    |         |                       |                        |
| 4                                                                                                                                                    | CCITT Rec. X.733   ISO/IEC 10164-4                             | Annex B Item B.1/1             | qualityOfServiceAlarm notification                                    | –                      | c16    |         |                       |                        |
| c13: if E.2/1a then m else –.<br>c14: if E.2/2a or E.2/3a or E.3/4a then m else –.<br>c15: if E.2/5a then m else –.<br>c16: if E.2/6a then m else –. |                                                                |                                |                                                                       |                        |        |         |                       |                        |

**Annex F<sup>2)</sup>****MICS proforma**

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

**F.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.

**F.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.

**F.3 Symbols, abbreviations and terms**

The following abbreviations are used throughout the MICS proforma:

dmi-att          joint-iso-itu-t ms(9) smi(3) part2(2) attribute(7)  
moa-att          joint-iso-itu-t ms(9) function(2) part11(11) attribute(7)

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

**F.4 Statement of conformance to the management information****F.4.1 Attributes**

The specifier of a manager role implementation that claims to support management operations on the attributes specified in this Recommendation | International Standard shall import a copy of the following tables and complete them.

**Table F.1 – Attribute support**

| Index | Attribute template label | Value of object identifier for attribute | Constraints and values | Set by create |         | Get    |         | Replace |         |
|-------|--------------------------|------------------------------------------|------------------------|---------------|---------|--------|---------|---------|---------|
|       |                          |                                          |                        | Status        | Support | Status | Support | Status  | Support |
| 1     | objectClass              | {dmi-att 65}                             | –                      | c1            |         | o.4    |         | –       |         |
| 2     | nameBinding              | {dmi-att 63}                             | –                      | c1            |         | o.4    |         | –       |         |
| 3     | packages                 | {dmi-att 66}                             | –                      | c1            |         | o.4    |         | –       |         |
| 4     | allomorphs               | {dmi-att 50}                             | –                      | c1            |         | o.4    |         | –       |         |
| 5     | scannerId                | {moa-att 25}                             | –                      | c1            |         | o.4    |         | –       |         |
| 6     | granularityPeriod        | {moa-att 23}                             | –                      | c1            |         | o.4    |         | o.4     |         |
| 7     | administrativeState      | {dmi-att 31}                             | –                      | c1            |         | o.4    |         | o.4     |         |
| 8     | operationalState         | {dmi-att 35}                             | –                      | –             |         | o.4    |         | –       |         |
| 9     | availabilityStatus       | {dmi-att 33}                             | –                      | –             |         | o.4    |         | –       |         |

**2) Copyright release for MICS proforma**

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. Instructions for completing the MICS proforma are specified in ITU-T Rec. X.724 | ISO/IEC 10165-6.

Table F.1 (continued)

|    |                                                |              |             | Set by create |  | Get |  | Replace |  |
|----|------------------------------------------------|--------------|-------------|---------------|--|-----|--|---------|--|
| 10 | periodSynchronizationTime                      | {moa-att 24} | –           | c1            |  | o.4 |  | o.4     |  |
| 11 | startTime                                      | {dmi-att 68} | –           | c1            |  | o.4 |  | o.4     |  |
| 12 | stopTime                                       | {dmi-att 69} | DMI default | c1            |  | o.4 |  | o.4     |  |
| 13 | intervalsOfDay                                 | {dmi-att 57} | DMI default | c1            |  | o.4 |  | o.4     |  |
| 14 | weekMask                                       | {dmi-att 71} | DMI default | c1            |  | o.4 |  | o.4     |  |
| 15 | schedulerName                                  | {dmi-att 67} | –           | c1            |  | o.4 |  | –       |  |
| 16 | observedObjectInstance                         | {moa-att 16} | –           | c1            |  | o.4 |  | –       |  |
| 17 | observedAttributeId                            | {moa-att 15} | –           | c1            |  | o.4 |  | –       |  |
| 18 | derivedGauge                                   | {moa-att 2}  | –           | –             |  | o.4 |  | –       |  |
| 19 | previousScanCounterValue                       | {moa-att 1}  | –           | c1            |  | o.4 |  | o.4     |  |
| 20 | proceduralStatus                               | {dmi-att 36} | –           | –             |  | o.4 |  | –       |  |
| 21 | modulusValue                                   | {moa-att 1}  | –           | c1            |  | o.4 |  | o.4     |  |
| 22 | previousScanGaugeValue                         | {moa-att 20} | –           | c1            |  | o.4 |  | o.4     |  |
| 23 | severityIndicatingGaugeThreshold               | {moa-att 18} | –           | c1            |  | o.4 |  | o.4     |  |
| 24 | specificProblemIndicator                       | {moa-att 19} | –           | c1            |  | o.4 |  | o.4     |  |
| 25 | derivedGaugeTimestamp                          | {moa-att 3}  | –           | –             |  | o.4 |  | –       |  |
| 26 | estimateOfMean                                 | {moa-att 7}  | –           | c2            |  | o.4 |  | o.4     |  |
| 27 | movingTimePeriod                               | {moa-att 13} | –           | c2            |  | o.4 |  | o.4     |  |
| 28 | estimateOfMeanSeverityIndicatingGaugeThreshold | {moa-att 6}  | –           | c2            |  | o.4 |  | o.4     |  |
| 29 | algorithmIdentifier                            | {moa-att 26} | –           | c3            |  | o.4 |  | o.4     |  |
| 30 | estimateOfLargest                              | {moa-att 4}  | –           | c4            |  | o.4 |  | o.4     |  |
| 31 | estimateOfSmallest                             | {moa-att 9}  | –           | c4            |  | o.4 |  | o.4     |  |
| 32 | secondMovingTimePeriod                         | {moa-att 17} | –           | c5            |  | o.4 |  | o.4     |  |
| 33 | estimateOfVariance                             | {moa-att 10} | –           | c6            |  | o.4 |  | o.4     |  |
| 34 | estimateOfLargestInReplication                 | {moa-att 21} | –           | c7            |  | o.4 |  | o.4     |  |
| 35 | estimateOfSmallestInReplication                | {moa-att 22} | –           | c7            |  | o.4 |  | o.4     |  |
| 36 | estimateOfMedian                               | {moa-att 7}  | –           | c7            |  | o.4 |  | o.4     |  |
| 37 | estimateOf100-PCTPercentile                    | {moa-att 11} | –           | c7            |  | o.4 |  | o.4     |  |
| 38 | estimateOfPCTPercentile                        | {moa-att 8}  | –           | c7            |  | o.4 |  | o.4     |  |
| 39 | numberOfReplications                           | {moa-att 14} | –           | c7            |  | o.4 |  | o.4     |  |
| 40 | configurablePCT                                | {moa-att 0}  | –           | c7            |  | o.4 |  | o.4     |  |

c1: if F.2/1a or F.3/1a or F.4/1a or F.5/1a or F.6/1a or F.7/1a or F.8/1a then o.4 else –.

c2: if F.2/1a or F.3/1a or F.4/1a or F.5/1a or F.6/1a or F.7/1a then o.4 else –.

c3: if F.6/1a then o.4 else –.

c4: if F.4/1a then o.4 else –.

c5: if F.2/1a or F.3/1a then o.4 else –.

c6: if F.2/1a then o.4 else –.

c7: if F.3/1a then o.4 else –.

Table F.1 (concluded)

| Index | Add    |         | Remove |         | Set to default |         | Additional information |
|-------|--------|---------|--------|---------|----------------|---------|------------------------|
|       | Status | Support | Status | Support | Status         | Support |                        |
| 1     | –      |         | –      |         | –              |         |                        |
| 2     | –      |         | –      |         | –              |         |                        |
| 3     | –      |         | –      |         | –              |         |                        |
| 4     | –      |         | –      |         | –              |         |                        |
| 5     | –      |         | –      |         | –              |         |                        |
| 6     | –      |         | –      |         | –              |         |                        |
| 7     | –      |         | –      |         | –              |         |                        |
| 8     | –      |         | –      |         | –              |         |                        |
| 9     | –      |         | –      |         | –              |         |                        |
| 10    | –      |         | –      |         | –              |         |                        |
| 11    | o.4    |         | o.4    |         | o.4            |         |                        |
| 12    | –      |         | –      |         | o.4            |         |                        |
| 13    | o.4    |         | o.4    |         | o.4            |         |                        |
| 14    | o.4    |         | o.4    |         | o.4            |         |                        |
| 15    | –      |         | –      |         | –              |         |                        |
| 16    | –      |         | –      |         | –              |         |                        |
| 17    | –      |         | –      |         | –              |         |                        |
| 18    | –      |         | –      |         | –              |         |                        |
| 19    | –      |         | –      |         | –              |         |                        |
| 20    | –      |         | –      |         | –              |         |                        |
| 21    | –      |         | –      |         | –              |         |                        |
| 22    | –      |         | –      |         | –              |         |                        |
| 23    | o.4    |         | o.4    |         | –              |         |                        |
| 24    | –      |         | –      |         | –              |         |                        |
| 25    | –      |         | –      |         | –              |         |                        |
| 26    | –      |         | –      |         | –              |         |                        |
| 27    | –      |         | –      |         | –              |         |                        |
| 28    | o.4    |         | o.4    |         | –              |         |                        |
| 29    | –      |         | –      |         | –              |         |                        |
| 30    | –      |         | –      |         | –              |         |                        |
| 31    | –      |         | –      |         | –              |         |                        |
| 32    | –      |         | –      |         | –              |         |                        |
| 33    | –      |         | –      |         | –              |         |                        |
| 34    | –      |         | –      |         | –              |         |                        |
| 35    | –      |         | –      |         | –              |         |                        |
| 36    | –      |         | –      |         | –              |         |                        |
| 37    | –      |         | –      |         | –              |         |                        |
| 38    | –      |         | –      |         | –              |         |                        |
| 39    | –      |         | –      |         | –              |         |                        |
| 40    | –      |         | –      |         | –              |         |                        |

**F.4.2 Create and delete management operations**

The specifier of a manager role implementation that claims to support the create or delete management operations on the managed objects specified in this Recommendation | International Standard shall import a copy of the following tables and complete them.

**F.4.2.1 Mean and variance monitor managed object class****Table F.2 – Create and delete support**

| Index | Operation                    | Constraints and values | Status | Support | Additional information |
|-------|------------------------------|------------------------|--------|---------|------------------------|
| 1     | Create support               | –                      | o.4    |         |                        |
| 1.1   | Create with reference object | –                      | c:o    |         |                        |
| 2     | Delete support               | –                      | o.4    |         |                        |

**F.4.2.2 Mean and percentile monitor managed object class****Table F.3 – Create and delete support**

| Index | Operation                    | Constraints and values | Status | Support | Additional information |
|-------|------------------------------|------------------------|--------|---------|------------------------|
| 1     | Create support               | –                      | o.4    |         |                        |
| 1.1   | Create with reference object | –                      | c:o    |         |                        |
| 2     | Delete support               | –                      | o.4    |         |                        |

**F.4.2.3 Mean and min max monitor managed object class****Table F.4 – Create and delete support**

| Index | Operation                    | Constraints and values | Status | Support | Additional information |
|-------|------------------------------|------------------------|--------|---------|------------------------|
| 1     | Create support               | –                      | o.4    |         |                        |
| 1.1   | Create with reference object | –                      | c:o    |         |                        |
| 2     | Delete support               | –                      | o.4    |         |                        |

**F.4.2.4 Moving average mean monitor managed object class****Table F.5 – Create and delete support**

| Index | Operation                    | Constraints and values | Status | Support | Additional information |
|-------|------------------------------|------------------------|--------|---------|------------------------|
| 1     | Create support               | –                      | o.4    |         |                        |
| 1.1   | Create with reference object | –                      | c:o    |         |                        |
| 2     | Delete support               | –                      | o.4    |         |                        |

**F.4.2.5 Algorithm indicating mean monitor managed object class****Table F.6 – Create and delete support**

| Index | Operation                    | Constraints and values | Status | Support | Additional information |
|-------|------------------------------|------------------------|--------|---------|------------------------|
| 1     | Create support               | –                      | o.4    |         |                        |
| 1.1   | Create with reference object | –                      | c:o    |         |                        |
| 2     | Delete support               | –                      | o.4    |         |                        |

**F.4.2.6 Mean monitor managed object class****Table F.7 – Create and delete support**

| Index | Operation                    | Constraints and values | Status | Support | Additional information |
|-------|------------------------------|------------------------|--------|---------|------------------------|
| 1     | Create support               | –                      | o.4    |         |                        |
| 1.1   | Create with reference object | –                      | c:o    |         |                        |
| 2     | Delete support               | –                      | o.4    |         |                        |

**F.4.2.7 Monitor metric managed object class****Table F.8 – Create and delete support**

| Index | Operation                    | Constraints and values | Status | Support | Additional information |
|-------|------------------------------|------------------------|--------|---------|------------------------|
| 1     | Create support               | –                      | o.4    |         |                        |
| 1.1   | Create with reference object | –                      | c:o    |         |                        |
| 2     | Delete support               | –                      | o.4    |         |                        |